Examining the development of self-regard: Outcomes and predictors of this upon psychological well-being and posttraumatic growth.

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List of Abbreviations

BPS	British Psychological Society
CIOQ	Changes in Outlook Questionnaire
CIOQ-P	Changes in Outlook Questionnaire – Positive subscale
CLE	Checklist of Life Events
CMPCS	Chinese Maternal Psychological Control Scale
CPPCS	Chinese Paternal Psychological Control Scale
CRPBI	Children's Report of Parents Behaviour Inventory
CRPR	Block Child Rearing Practices Report
GAD	Generalised Anxiety Disorder
IES-R	Impact of Event Scale-Revised
OV	Organismic Valuing
OVP	Organismic Valuing Process
PCS	Psychological Control Scale
PCS-YSR	Psychological Control Scale – Youth Self Report
PTG	Posttraumatic Growth
PTGI	Posttraumatic Growth Inventory
PTSD	Posttraumatic Stress Disorder
SDT	Self Determination Theory
SEM	Structural Equation Modelling
T1	Time 1
T2	Time 2
UPRS	Unconditional Positive Self-Regard
UPSRS	Unconditional Positive Self-Regard Scale
WEMWBS	Warwick Edinburgh Mental Well-being Scale

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Declaration

This thesis has not been submitted for a degree at any other University. It is my own work and does not contain any work based on collaborative research. Under the supervision of Dr Tom Patterson (Lecturer/Practitioner, Clinical Psychology Doctorate, Coventry University) and Professor Stephen Joseph (Professor of Psychology, Health and Social Care, University of Nottingham), who assisted with the design of the empirical study, I carried out all stages of this thesis. Dr Ian Hume (Senior Lecturer in Psychology, Coventry University) provided assistance during the statistical analysis of the data in the empirical study. Dr Carolyn Gordon provided assistance in proof reading a draft of the literature review and reflective paper during a period of supervisor absence.

Summary

This thesis comprises three chapters. A systematic literature review, an empirical study and a reflective account. The overarching link between the papers is the development of and the ongoing influence of sense of self/self-regard and its relationship to mental health and growth.

The literature review examines the findings of 16 longitudinal studies measuring parental psychological control (PPC) and a measure of negative psychological consequences. The research findings are presented and critically evaluated. Clinical implications of the research findings are discussed and future research directions are suggested.

The empirical study sought to identify predictors of posttraumatic growth (PTG) following the experience of an adverse/traumatic life event. 144 participants completed online questionnaires at Time 1 (76 completed the follow up questionnaires three months later). Questionnaires measured the experience and impact of a traumatic life event, along with unconditional positive self-regard (UPSR) and PTG. UPSR was found to significantly mediate the emergence of PTG. Further analysis revealed that when analysed separately, a mediating relationship is maintained for positive self-regard but not conditionality of self-regard. Methodological limitations are considered and suggestions for future research are proposed.

The reflective paper provides an overview of the personal and professional growth experienced whilst undertaking this thesis. I also provide a reflective account of how the clinical placement I undertook whilst conducting the thesis influenced my professional development in becoming a more autonomous practitioner.

Chapter I

Understanding the relationship between Parental Psychological Control and adverse psychological outcomes over time

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(See Appendix 1 for author guidelines)

1.1. Abstract

Parental Psychological Control (PPC) is becoming an increasingly studied domain in parenting research. There exist many cross sectional studies looking at this area. The present review was interested in looking at the long term psychological consequences of PPC. 16 longitudinal studies were examined. These studies reported relationships between PPC and negative psychological sequelae. The findings of these 16 studies are presented and critically evaluated. Limitations, in particular disparity in measurement of PPC, are discussed. Future directions of research are also indicated.

Keywords*: Psychological control, Parental, maternal, paternal, parent-child relations, review.*

1.2. Introduction

Parenting styles and behaviour have received much attention in developmental psychology literature (Baumrind, 1978; Maccoby and Martin, 1992; Darling and Steinberg, 1993; Barber and Xia, 2013). One form of parenting behaviour that has received a great deal of attention is that of parental control.

1.2.1. Parental Control

Early research on parental control can be traced back to Carl Rogers. His conceptualisation of conditions of self- worth, referred to values introjected from significant others, most typically parents. The individual is posited to act according to the dictates of these internalised values, such as an internal need for approval from others (Rogers, 1959).

Conditions of worth are conceptualised as those values that are 'introjected by the individual from his or her social interactions and that stem from the developing infant's need for positive regard from significant others in his or her social environment….as the child develops, the conditions of worth are introjected, acting as an internalised social other' (Patterson and Joseph, 2007).

Building upon Roger's concept of conditions of worth (Rogers, 1959), recent theoretical approaches have developed similar constructs such as contingent self-regard (Ryan and Brown, 2003) and contingencies of self-worth (Crocker and Wolfe, 2002) to refer to the idea that an individual's evaluation of their own worth be contingent upon certain values that have been internalised from parents or

significant others. Research in this area has focused on the child's experience of parental psychological control, conditional regard and love withdrawal. The experience of parental contingent regard has been shown to result in internalisation of contingent regard (described elsewhere as introjection), which is posited to protect the individual from feeling guilty, ashamed, and unworthy (Assor and Roth 2004).

Self Determination Theory (SDT) has been used frequently as a framework for considering human motivation. It asserts that the individual has an innate psychological need for competence, autonomy and relatedness. SDT views introjection as a process where internal regulations do not become part of an integrated set of motivations and are not assimilated to the self. Therefore, whilst introjections are viewed as being a construct that is within the person, the resulting behaviours of such regulations are 'not (thought to be) self-determined and remain relatively external to the person' (Ryan and Deci, 2000). In other words, the individual's self-regulation can become more extrinsic, with the source of motivation for their actions being based more on external or introjected beliefs and values.

1.2.2. Parental Psychological Control

The present review focuses on parental psychological control (PPC). PPC is defined as the way in which a parent relates to their child as a means of socialising them to a particular set of values or desired behaviours (Smits, Soenens, Luyckx, Duriez,

Berzonsky, and Goossens, 2008). Such techniques may include guilt induction or love withdrawal (Barber and Harmon, 2002).

It has been noted that one of the main limitations of the body of empirical research investigating the use of PPC is that many different labels are used to describe the construct and until recently, the literature on PPC has remained conceptually incoherent and rather disjointed (Grolnick and Pomerantz, 2009). However, more recent conceptual and theoretical updates have synthesised a clearer and more refined definition of PPC (Grolnick and Pomerantz, 2009; Soenens and Vansteenkiste, 2010). Furthermore, recent empirical research has begun to identify adverse psychological outcomes associated with this style of parent-child relating, though until now no systematic review has considered this body of empirical literature from a more clinically focused perspective.

The concept of psychologically controlling parenting has increasingly become a focus of research since the mid 1990's and has been predominantly investigated by developmental and socialization researchers. Early writing on this topic can be traced back to the 1960's (Schaefer, 1965) and it later re-appeared together with a definition of 'psychological control' as occurring when parents "attempt to intrude on the psychological and emotional development of the child (e.g. thinking processes, self-expression, and attachment to the parent)" (Barber, 1996, p.3296). This remains an accepted and widely used definition in current empirical research in this area. Recent studies indicate that a number of parental psychological control strategies may be employed, including guilt induction, contingent love or love withdrawal, instilling anxiety, and invalidation of the child's perspective (Barber and Harmon, 2002).

1.2.3. Emotion regulation

Emotion regulation is an important aspect of optimal psychological functioning (Gross and John, 2003). Self-determination theory posits that emotion regulation can be divided into three types. Firstly: dysregulation, which refers to an individual experiencing an emotion but not being able to regulate it. Secondly: suppressive regulation, which refers to the avoidance or minimizing of the experience of a negative emotion. Finally, emotional integration is described as a way in which an individual is aware of their own emotional state and feels able to make a choice about how they manage and regulate the experience of such an emotion (Ryan, Deci, Grolnick, & La Guardia, 2006). The literature on emotion regulation discusses the importance of achieving integration, where an individual is able to develop processes and structures that allow regulation through choice rather than through control techniques such as suppression or denial (Roth, Assor, Niemiec, Ryan and Deci, 2009).

1.2.4. Emotion regulation and psychological wellbeing

Emotion regulation in the above literature is defined as 'intra- and extra-organismic factors by which emotional arousal is redirected, controlled, modulated and modified to enable an individual to function adaptively in emotionally arousing situations' (Garber and Dodge 1991). Extra-organismic factors in emotion regulation can include increased parental response and tolerance of affect and the parents' socialization of affective display during interactions, (Hesse and Cicchetti, 1982). The standard developmental view purports that a child initially relies on interactions with their caregivers to regulate their emotions (Cassidy, 1994). It is proposed that over time

these skills become internalized. It is further argued that developing the ability to regulate one's own emotion is a skill, which is carried into adulthood, where such skills influence coping style, problem solving, social support processes, relationship quality, and mental and physical health (Cooper, Shaver, & Collins, 1998; Fabes & Eisenberg, 1997; Repetti, Taylor, & Seeman, 2002). The presence of adaptive emotion regulation is therefore viewed as desirable and as being an indicator of psychological wellbeing (Moore, Zoellner, & Mollenholt 2008).

1.2.5. Maladaptive emotion regulation and mental health

In contrast, maladaptive emotion regulation is viewed as an important factor in the development and maintenance of psychological disorders (Moore *et al*, 2008). There exists a plethora of literature demonstrating that emotion dysregulation is associated with a number of negative psychological symptoms. These include deliberate self-harm, experiential avoidance, self-blame, substance misuse, maladaptive perfectionism, and delinquency (Soenens, Vansteenkiste, Luyckx & Goosens, 2006). However, there is currently a lack of published research studies looking at the relationship between maladaptive emotion regulation and PPC.

1.2.6. Mixed findings on research on parental psychological control

The body of literature on PPC has focused on a number of areas. Research into parental conditional regard (PCR) has described how parents may use this form of psychological control as a means of achieving socialisation goals with their children

(Rogers, 1951, Sears, Maccoby and Levin, 1957), such as academic achievement (Assor and Roth, 2005).Other studies have focused on a different set of outcomes. These studies describe a negative impact of PPC on the developing individual and compare and contrast this parenting style based on PPC with a parenting style based on autonomy support. Within this body of research, autonomy supportive parenting is viewed as a healthier parenting style as it is associated with more positive psychological outcomes for the developing individual, such as psychological wellbeing (Roth, Assor, Niemiec, Ryan and Deci, 2004).

1.2.7. Rationale for the present literature review

The focus of the present review will be on the psychological consequences over time of parental psychological control. As there are yet no published systematic literature reviews on PPC and negative psychological consequences over time, the present study is interested in establishing whether or not correlations exist between these two variables. For the purpose of this review, wherever psychological well-being has been measured, alongside a measure of parental psychological control, these findings will be reported. Where studies have employed further analysis, which is relevant to the present review, these findings will also be presented.

1.2.8. Aims and scope of the present literature review

The aim of the present systematic review is:

i. To critically evaluate the existing empirical literature on the relationship between parental psychological control and negative psychological outcomes.

1.3. Review

1.3.1. Search strategy

A search strategy was carried out between January and April 2014 utilising several relevant databases; Ovid Medline (Embase and Medline), Proquest (PsycArticles and PsycInfo) and Ebsco Host (CINAHL and E-Journals).

The first widely accepted definition of the construct of PPC appears in Barber's 1996 large-scale study and review of the construct (Barber, 1996). Most recent studies have taken Barber's conceptual synthesis as a starting point for further research in the area, largely adopting the operational definition of PPC that it provided (Barber,1996) and a substantial body of empirical literature has emerged since that time. Given that Barbers influential work was published in December 2006, the present literature review will examine empirical studies published between 1997 and 2014. Table 1.1 below presents the search terms used.

Table 1.1

Concept	Term 1		Term 2		Term 3
Parental Psychological Control	Parent*	**AND**	Psychological	**AND**	Control
	OR				
	Maternal				
	OR				
	Paternal				
	OR				

An eligibility sort was undertaken using the titles and abstracts. These were cross checked against the selection criteria (see table 1.2). All papers identified using the initial search terms were then screened to identify whether they also measured either psychological well-being or emotion regulation. A citation search function was used for all papers that met the initial selection criteria. Reference lists of all selected full text papers were then searched for further empirical papers that may be relevant

Table 1.2; Selection Criteria

Inclusion criteria	Longitudinal studies Presented empirical research, published in a peer reviewed journal Reported measurement of PPC Reported effects of PPC on psychological well-being OR emotion regulation. In terms of measuring these concepts and for the purpose of consistency in comparing studies, only quantitative studies were sought for the purpose of the review
Exclusion criteria	Cross sectional studies Book chapters, commentary papers, conference proceedings, letters, review papers The paper was not available in English language Participants were identified as having cognitive impairment

to the aims of the present review. Table 1.2 shows the inclusion and exclusion criteria for the present literature review.

1.3.2. Quality Assessment Framework

A quality rating framework was completed for all papers that met the suitability criteria for the review. A critical appraisal checklist developed by Glynn, MacFarlane, Kelly, Cantillon and Murphy (2006) was used to examine the selected papers. This tool allows the researcher to evaluate information about the population, the data collection, the design, and the results of the reported research. Whilst no papers were eliminated through the measurement of quality, the way in which the quality assessment allowed the researcher to examine the studies in closer detail e.g. the sampling methodology, meant that reported findings could be compared as more or less noteworthy. A template example of the quality checklist and way in which scores were rated along with summary table of the quality check results can be found in Appendix 2.

1.3.3. Systematic Search Results

Systematic Search Results – Stage 1: Initially 2246 articles were found through the database search. Once limits were applied and duplicates removed this resulted in 611 results. Title and abstract screens resulted in 66 articles being identified as potentially relevant to the review and full text articles were obtained for these. After reading these articles and reviewing them against inclusion and exclusion criteria, 12 articles were found to meet the criteria for the purpose of the present literature review.

Systematic Search Results – Stage 2: The reference lists of the 12 full text articles were hand searched. This resulted in a further 4 full text articles being identified as meeting the inclusion criteria, bringing the final number of studies to be included in the present literature review to 16. This search strategy and process are illustrated in Figure 1.

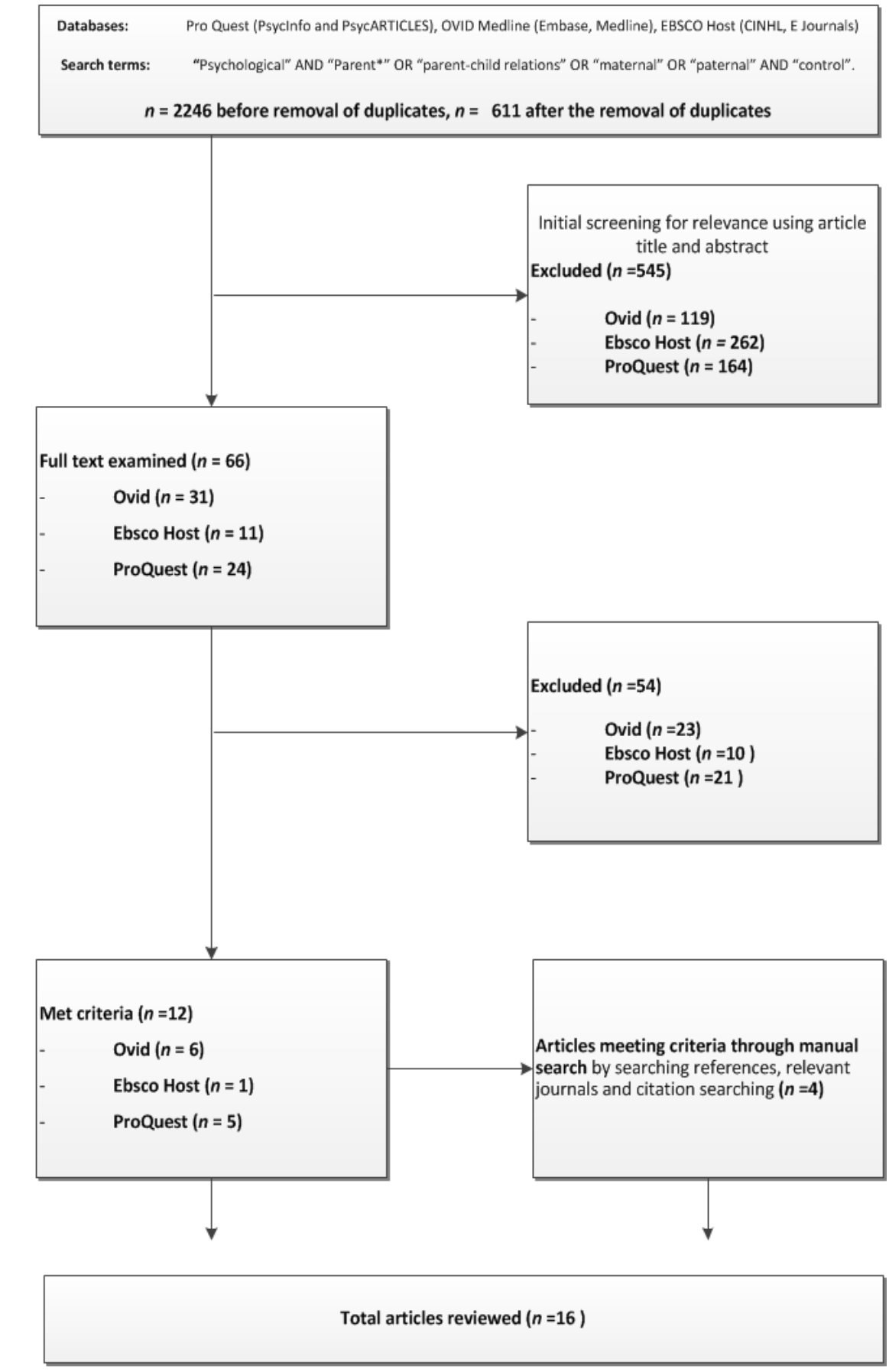
Databases: Pro Quest (PsycInfo and PsycARTICLES), OVID Medline (Embase, Medline), EBSCO Host (CINHL, E Journals)
Search terms: "Psychological" AND "Parent*" OR "parent-child relations" OR "maternal" OR "paternal" AND "control".
n = 2246 before removal of duplicates, n = 611 after the removal of duplicates
Initial screening for relevance using article title and abstract
Excluded (n =545)
- Ovid (n = 119)
- Ebsco Host (n = 262)
- ProQuest (n = 164)
Full text examined (n = 66)
- Ovid (n = 31)
- Ebsco Host (n = 11)
- ProQuest (n = 24)
Excluded (n =54)
- Ovid (n =23)
- Ebsco Host (n =10)
- ProQuest (n =21)
Met criteria (n =12)
- Ovid (n = 6)
- Ebsco Host (n = 1)
- ProQuest (n = 5)
Articles meeting criteria through manual search by searching references, relevant journals and citation searching (n =4)
Total articles reviewed (n =16)

Figure 1

1.3.4. Initial Overview of Selected Papers

As previously described, the focus of the present literature review was on the relationship between PPC and adverse psychological consequences over time.

The sixteen studies reviewed here all examined the long term psychological outcomes associated with PPC. Fourteen of the studies employed an adolescent sample, while the remaining two studies both were of younger children (Feng *et al.*, 2009; Rogers *et al.*, 2003). Data for young adults' experience of PPC or perceived PPC was not available.

Studies were conducted in North America (US), Holland, China and Hong Kong, with no longitudinal information available on UK populations. Details of the reviewed studies can be seen in Table 1.

In brief, the main scales used to measure PPC were various versions of The Psychological Control Scale, Barber (1996), and The Children's Report on Parent Behaviour Inventory (Schaefer, 1965), with four studies using an alternative measures of PPC. A full description of each of these measures is provided in Appendix 3.

Table 1.1

Author/Year	Time Frame	Sample (N)	Measures Used	Statistical analysis
Albrecht, Galambos, and Johnson (2007)	2003 and 2005. (Data collection interval was two years)	530 adolescents (12-19 years)	Psychological Control Scale, (Barber 1996) Internalising Behaviour Subscale (BCFPI-3)	Baseline: Correlations Paternal PPC and internalisation, r = .35*; Maternal PPC and internalisation, r = .35* 24 month follow up: Correlations between paternal PPC and Internalisation, r = .30*; maternal PPC, r = .32* Further analysis – hierarchical regressions predicting internalising behaviours; Fathers PPC as a predictor of internalising behaviours; Total R^2 at T1 = .35* and at T2 .41*
Barber, Stolz, Olsen, Collins, Burchinal (2005)	1994-1997 Yearly data collection	933 Students: at T1 students were recruited from 5th and 8th grade. Stratified sampling was employed.	Psychological Control Scale-Youth Self Report (Barber, 1996) Child Depression Index (Kovacs, 1992)	Simultaneous Equation Path Analysis; Maternal PPC and depressive symptoms: T1-T4; Males: .14**; Females: -.08; Young cohort: .04; Older cohort: .02 Paternal PPC and depressive symptoms: T1-T4; Males: .13**; Females: .16*; Younger cohort: .05; Older cohort: .20**
Boudreault- Bouchard, Dion, Hains, Vandermeerschen,	2002-2008 Data collection was separated by two	605 adolescents were recruited 14 at T1	The Parental Emotional Support and Coercive Control Questionnaire (Deschenes et al. 1997)	Correlational analysis between PPC and psychological distress; R = .71***

Laberge and Perron (2013)	year intervals. Three data waves.		Adapted psychiatric symptom Index	
Author/Year	**Time Frame**	**Sample (N)**	**Measures Used**	**Statistical analysis**
Conger, Conger and Scaramella (1997)	1989 and 1991. Measurement of PPC and internalising behaviour was separated by two year interval	388 children aged between 12-14 years old.	Psychological Control Scale, (Barber 1996) Symptom Checklist-Revised (SCL-R) (Derogatis, 1983)	Correlational analysis between paternal PPC and internalization at TI: r = .39** (girls), r = .28** (boys); maternal PPC and internalization at T1: r = .38** (girls), r = .33**(boys) Correlational analysis between paternal PPC and internalization at T2: r = .18** (girls), r = .19* (boys); maternal PPC and internalization at T2: r = .30** (girls), r = .35** (boys).
Feng, Keenan, Hipwell, Henneberger, Richall, Michal, Coyne, Borelat, Hinze, and Babinski (2009)	1998-1999 T2 data collection took place one year after T1.	225 children aged 9-10 years old and their mothers were recruited.	Children's Report on the Parent Behaviour Inventory (CRPBI; Schaefer, 1965) Kiddie schedule for affective disorders and schizophrenia for school aged children – present/lifetime version (K-SAD-PL; Kaufman, 1997) Child sadness management scales (CSMS) (Zeman et al., 2001)	Zero order correlations were reported; PPC and depressive symptoms at age 9: .36***; PPC and depressive symptoms at 12 month follow up: .27***

Author/Year	Time Frame	Sample (N)	Measures Used	Statistical analysis
Galambos, Barker, and Almeida (2003)	Data collection took place in Winter 1988, summer 1988, winter 1989, summer 1990, summer 1991.	112 adolescents, mean age 11.5 years old at T1	Child's Report of Parental Behaviour Inventory (CRPBI; Burger & Armentrout, 1971; Schaefer, 1965) Self-Image Questionnaire for young adolescents (Peterson et al, 1984).	Pearson correlations were reported; PPC and internalising problems: T1: .17 T2: .08 T3: 24** T4: .18
Hauser Kunz and Grych (2013)	One year interval between T1 and T2. Year of data collection not reported.	90 children aged 10-12	Items adapted from Psychological Control Scale, (Barber 1996) Youth Self-Report; Anxious/Depressed subscale (Achenbach, 1991)	Hierarchical multiple regression figures were reported; post hoc analysis found paternal PPC and internalising behaviours were correlated only when also combined with low autonomy granting, b = -.70**
Loukas (2009)	Time between T1 and T2 was one year. Year of data collection not reported.	479 10-14 year olds	Psychological Control Scale, (Barber 1996) Child Depression Index (Kovacs, 1992) Social anxiety scale for adolescents (SAS-A; La Greca and Lopez, 1998)	Zero order correlations were reported; maternal PPC and depressive symptoms at T1: r = .40***(girls), r = .39*** (boys); maternal PC and social anxiety at T1, r = .13* (girls), r = .11 (boys). Maternal PC and depressive symptoms at T2: r = .39*** (girls), r = .51*** (boys); maternal PC and social anxiety at T2, r = .02 (girls), r = .10 (boys).
Pettit, Laird, Dodge, Bates and Criss (2001)	T1 recruitment 1987-1988. Data collected at 8 years and then yearly until age 14.	440 children and mothers were recruited.	Psychological Control Scale, (Barber 1996) Youth self-report, Anxious/Depression subscale (Achenbach, 1991)	Hierarchical regression analysis; adolescent perceived PC and anxiety/depression; r = .13**; mother reported PC and anxiety/depression; r = .03

Author/Year	Time Frame	Sample (N)	Measures Used	Statistical analysis
Rogers, Buchanan, and Winchell (2003)	Data collection time period not reported	270 adolescents, 256 mothers, 96 fathers completed both sets of data	Psychological Control Scale, (Barber 1996) Center for epidemiological studies – Depression (CES-D; Radlof, 1977)	Zero order correlation analysis between adolescent reported PPC and internalising symptoms; maternal PPC at baseline, r = .30***; paternal PPC at baseline, r = .38***; maternal PPC at follow up, r = .40***, paternal PPC at follow up, r = .38***.
Shek (2007)	Time frame of data collection not reported. T1 and T2 were separated by a one year interval.	2758 adolescents aged 11-19 were recruited at T1.	Chinese Paternal Psychological Control Scale (CPPCS) and Maternal Psychological Control Scale (CMPCS) (Shek, 2002) Hopelessness scale (HOPEL; Beck, 1974)	Correlation analysis between PPC and hopelessness scale scores; T1 paternal PPC and hopelessness Scale: .33*;T1 maternal PPC and hopelessness Scale: .38*; T2 paternal PPC and hopelessness Scale: .28*; T2 maternal PPC and hopelessness Scale: .33*
Sher Censor, Parke and Coltrane (2011)	Participants were followed annually for three years. Baseline year not reported.	167 adolescents were recruited	New scale extracted based upon Block Child Rearing Practices Report (Rickel and Biasatti, 1982) Child Depression Index (CDI; Kovacs, 1985)	Hierarchical regression analysis between PPC and depressive symptoms r = .20*

Author/Year	Time Frame	Sample (N)	Measures Used	Statistical analysis
Soenens, Vansteenkiste, Luyckx, Luyten, Duriez and Goosens (2008)	Year of data collection not reported. Three data measurement waves. Data collected annually. Depression was measured at two time points (T1 and T3)	434 adolescents between 15-18 years	Psychological Control Scale, (Barber 1996) Center for epidemiological studies – Depression (CES-D; Radlof, 1977)	Correlational analysis between adolescent reported PPC and depressive symptoms; paternal PPC and depressive symptoms at T1; r = .38***; maternal PC and depressive symptoms at T1, r = .26***; paternal PC and depressive symptoms at T3, r = .26**; maternal PC and depressive symptoms at T3, r = 0.10*
Van der Bruugen, Siqueland Stoms, Bogels and Hoogeboom (2010)	T1 and T2 data collected after one year interval	35 children, mean age at T1 was 3.69 years.	Observational coding system based upon Siqueland, Kendall, and Steinberg (1996) and Hudson and Rapee (2002). Child Behaviour Checklist (CBCL, Achenbach, 1991) Negative emotionality; Children's behaviour questionnaire (CBQ, Majdandzic & Van den Boom, 2001)	Pearson correlation analysis between maternal PPC and anxiety/depression at T2: .27; paternal PPC and anxiety/depression at T2: -.07. Correlation analysis not reported over both data points. Correlation between negative emotionality at T1 and PPC at T2, r = .48**
Wang, Pomeranz and Chan (2007)	T1 and T2 separated by two seasons (fall and spring). Year of data collection not reported.	373 adolescents in USA 433 adolescents in China	Psychological Control Scale, (Barber 1996) Emotional Ill-being Scale; comprised of Diener 1995, Patrick *et al.* 1993, Watson *et al.*, 1988)	Zero order correlations reported between PPC and emotional ill being at TI; r =.37***(USA), r = .24*** (China); PPC and emotional ill being at T2; r = .39*** (USA), r = .30*** (China)

Author/Year	Time Frame	Sample (N)	Measures Used	R values
Wijsbroek, Hale, Raaijmakers and Meeus (2011)	Year of data collection not stated. Data collection waves were separated by two year intervals	1,313 adolescents were recruited at T1 Early-middle adolescent sample mean age; 12.4 years Middle to late adolescent sample mean age; 16.7 years	Children's Reports of Parents Behaviour Inventory (CRPBI; Schaefer, 1965) The screen for child anxiety-related emotional disorders (SCARED); SAD and GAD subscales (Birmaher *et al.* 1997)	Pearson correlation analysis between PPC at T1 and Generalised Anxiety Disorder at T2; Overall group: .04; Early adolescent boys: 0.12*; Early adolescent girls: .05; Late adolescent boys: .22**; Late adolescent girls: .06 Pearson correlation between PPC at T2 and GAD at T3; Overall group: .05; Early adolescent boys: .12**; Early adolescent girls: .11**; Late adolescent boys: .14; Late adolescent girls: .23**

1.3.5. Socio-demographic considerations

Findings from studies using the Psychological Control Scale

A number of studies have considered the impact of PPC on socio-demographic factors. Firstly in terms of age, there was consideration of adolescents perceiving higher levels of PPC as they became older and arguably sought increased autonomy (Albrecht *et al.*, 2007; Barber *et al.*, 2005). However other studies using this measure of parental control did not comment upon this occurrence. It is possible that limitations of having such a small age range from which to examine the effect of PPC meant that looking at age differences could not be meaningfully achieved. Secondly, gender differences may be considered. Barber *et al.* (2005) reported a weak significant positive relationship between PPC and depressive symptomology over time for males, (r = .14, p<.01), whereas a weak significant relationship with depression was reported for females reporting paternal PPC (r = .16, p < 05). Conger *et al.* (1997) reported a moderately strong significant positive relationship between PPC and internalising behaviour in girls at baseline (r = .39, p <.01) and a weak significant positive relationship between PPC and internalising behaviour in boys at baseline (r =.28, p <.01) These relationships were reported again at the second data collection point, however, whilst both relationships remained significant, they were weakly correlated, (girls, r = .18, p < .01; boys, r = .19, p <.05). Conger *et al* (1997) reported that 'correlations among variables were not as robust across time periods as they were within time periods, especially for girls' (Conger *et al.*, 1997).

1.3.6. Findings for maternal psychological control and paternal psychological control

1.3.6.1. Paternal Psychological Control

Findings from studies using the Psychological Control Scale

Three studies reported findings specific to fathers PPC. Firstly: Albrecht *et al.* (2007) found that fathers were significantly more psychologically controlling compared to mothers. Secondly: Barber *et al.* (2005) separated their analysis to look at the effects of paternal and maternal psychological control on girls and boys. They reported a weak significant positive relationship demonstrating that paternal psychological control was correlated with depression in both males ($r = .13$, $p < .01$) and females ($r = .16$, $p < .05$) between baseline and Time 4 (four years post baseline). Paternal PPC was also significantly positively related with the older participant cohort depression symptomology ($r = .20$, $p < .01$). These findings were not replicated for maternal psychological control. Hauser Kunz and Grych (2013), however, only support the previously stated results when low autonomy granting is also present in addition to paternal PPC. Multiple regression analysis revealed the correlation for paternal PPC and depression when also combined with low autonomy granting was a strongly significant positive relationship ($b = .70$, $p < .05$).

Loukas (2009) found that maternal PPC was moderately strongly significantly positively correlated with depressive symptoms over both data collection time points (Baseline; girls, $r = .40$, $p < .001$; boys, $r = .39$, $P < .01$). Pettit *et al.* (2001) also found a weakly significant positive correlation between PPC and anxiety ($r = .13$, $p < .01$) and reported that PPC was a predictor of anxiety over time. The sample was female only and therefore the findings were specific only to females.

In contrast a study by Rogers *et al.* (2003) found that internalising behaviours measured at baseline were moderately, significantly, positively correlated to self-reported PPC at both time points (maternal PPC at baseline, r = .30***; paternal PPC at baseline, r = .38***; maternal PPC at follow up, r = .40***, paternal PPC at follow up, r = .38***. Further analysis revealed a reverse direction of effect, however, where by cognitive bias was attributed to adolescent's reports of perceived psychological control, which was in turn attributed to pre-existing internalising symptoms.

1.3.6.2. Maternal Psychological Control

Findings from studies using the Psychological Control Scale

In their study of maternal PPC, Barber *et al.* (2005) examined correlations of maternal PPC and depression stratified by gender (males versus females) and age (younger cohort versus older cohort). It was only in males that depression was found to be significantly associated with maternal PPC over time, showing a weak significant positive relationship (r = .14, p<.01). In contrast, paternal psychological control was found to be significantly associated with depression for males, females, and the older cohort sample. This will be further discussed elsewhere in the review.

Findings from studies using other measures of PPC

Shek (2007) using a different measure of PPC (Chinese maternal and paternal psychological control scales), reported that mothers exhibited higher levels of PPC than fathers, although this association had a small effect size (.08). Other specific parent gender differences were observed, including a moderate positive and significant relationship between maternal PC and hopelessness (T1, r = .38, p <.05; T2, r = .33, p< .05). A moderately strong significant positive relationship was also reported between paternal PPC and hopelessness at baseline (r =.33, p <.05). This relationship, whilst remaining significant, was weaker at 12 month follow up (r = .28, p < .05). Multiple regression analysis was also conducted and showed that PPC predicted hopelessness symptoms with a low effect size. Shek (2007) concluded that PPC influences adolescent psychological wellbeing over time and suggests that the relationship bidirectional, with PPC predicted hopelessness symptoms and vice versa.

1.3.7. Parental psychological control and emotional sequelae:

Findings from studies using the Psychological Control Scale

Overall, mixed findings were reported for the presence of a relationship between parental psychological control and negative symptomology. There were several studies which all found a positive correlation between PPC and depressive symptomology (Albrecht *et al.*, 2007; Barber *et al.*, 2005; Conger *et al.*, 1997; Loukas, 2009; Pettit *et al.*, 2001 and Soenens *et al.*, 2008). Levels of significance were reported in the range of p<.05 to p< .001.

Albrecht *et al.* (2007) found a moderately strong significant positive correlation between internalising behaviour and paternal PPC at both data collection points (Baseline: Correlations Paternal PPC and internalisation, $r = .35$, $p<.05$; Maternal PPC and internalisation, $r = .35$, $p < .05$; 24 month follow up: Correlations between paternal PPC and Internalisation, $r = .30$, $p < .05$; maternal PPC, $r = .32$, $p < .05$). Further analysis indicated that paternal PPC only was able to predict later depression (Baseline, $R^2 = .35$, $p <.05$; 12 month follow up, $R^2 = .41$, $p < .05$), while paternal PPC was only found to be associated with depression in females ($r = .16$, $p < .05$). Albrecht *et al.* (2007) concluded, however, that the direction of this effect was a result of 'child effects' rather than 'parent effects'. Thus, the higher the internalising behaviour in the child, the higher the level of PPC was reported.

Barber *et al.* (2005) measured PPC and depressive symptoms yearly over a four year period. They reported a weak but significant positive relationship between these two variables at T1-T4 (Males, maternal PPC, $r = .14$, $p < .05$; paternal PPC, r .13, $p <.05$). Conger *et al.* (1997) measured internalising behaviour with the depression subscale of the Symptom Checklist Revised (SCL-90). Therefore internalising behaviours in this study refer to depressive symptomology. A moderately strong significant positive correlation was found between maternal PPC and internalising behaviours over time (baseline girls, $r = .38$, $p<.01$; baseline boys, $r = .33$, $p < .01$; 24 month follow up girls, $r = .30$, $p < .01$; 24 month follow up boys, $r = .35$, $p < .01$). Correlations for these relationships were also reported for paternal PPC, however a moderately strong significant positive relationship between the described variables was found for girls at baseline ($r = .39$, $p < .01$) whereas a weak significant positive relationship was reported for paternal PPC and boys internalization symptoms at baseline (.28, $p < .01$). These correlations were observed to

be further weakened at 24 month follow up (girls perceived PPC and internalisation, r = .18, p, .01; boys perceived PPC and internalisation symptoms, r = .19, p < .05).Hierarchical regression analysis, however, did not find a lagged effect between these two associations. Thus PPC and internalising behaviour at one time point could not predict changes in internalising behaviour at a later date.

Loukas (2009) conducted multi group analyses, with separate cross lagged models developed for boys and girls. Both models of PPC and internalising behaviours were described as representing 'an excellent fit' and the authors reported stability paths to be positive and significant over both time points. Loukas (2009) found moderately strong significant temporal associations between maternal psychological control and early adolescent depressive symptoms (baseline girls maternal PPC, r = .40, p < .001; follow up girls maternal PPC r = .39, p < .001) (baseline boys maternal PPC, r = .39, p < .001, follow up boys, r = .51, p < .001). Pettit *et al.* (2001) performed hierarchical regression analysis and reported a weak significant positive correlation between PPC and anxiety in girls over time (r = .13, p<.001). These findings add support to the body of evidence that has shown PPC to have negative psychological consequences for girls over time. Mothers were employed as the only measure of parent in this study. Soenens *et al.* (2008) established an indirect relationship between PPC and depressive symptoms in adolescents. They reported a moderately strong significant positive relationship at baseline between paternal PPC and depression r = .38, p < .001), which was weaker, though remained significant, at the second data collection point (r = .26, p <.01). A weaker correlation was reported between maternal PPC and depression across both time points (baseline; r =.26, p < .001; follow up; r = .10, p < .05).

Wang *et al.,* (2007) used multiple regression analysis to explore effects over time between parenting dimensions and children's functioning in two countries. PPC was moderately significantly correlated with emotional ill-being in both USA (baseline; r = .37, p < .001; follow up; .r = 39, *p*< .001) and China (baseline; r = .24, *p* < .001; follow up; r = .30, *p* < .001). Wang *et al.* (2007) also reported a significant inverse relationship between PPC and emotional wellbeing in both countries over time (USA baseline, r = -.38, p < .001; follow up, r =-.26, *p* < .001) (China baseline, r -.12, *p*< 01; follow up, r = -.19, *p* < .001).

Findings from studies using the Children's Report of Parent Behaviour Inventory

Feng *et al.* (2009) examined predictors for depressive symptoms in 9 and 10 year old girls and found a moderate significant positive relationship between PPC and depression at baseline (*r* = .36, *p* < .001). This relationship remained significant but weaker at the second data collection point, 12 months later (*r* = .27, *p* < .001). This study only measured participant's responses regarding their mother's level of PPC and therefore results should be interpreted within this context. PPC was concluded to have a moderating effect on the level of depressive symptoms reported.

Using Structural Equation Modelling (SEM), Wijsbroek *et al.* (2011) reported a good fit for a model for PPC and adolescent Generalised Anxiety Disorder (GAD) symptoms. They found no significant correlations between PPC and GAD for the overall group (r = .04, p > .05). Significant correlations were seen, however, within subgroups. They emphasised that the strongest associations noted were for child-effects, arguing that the relationship between PPC and anxiety may 'stem from a cognitive bias that make

adolescents with anxiety symptoms perceive their parents as more psychologically controlling' (Wijsbroek *et al.*, 2011).

Contrasting findings are reported by Galambos *et al.* (2003), who performed multilevel analyses on parenting behaviours and internalising behaviour across the trajectories of adolescence. They reported no significant interactions in their model for PPC and internalising behaviour, though did acknowledge some limitations of the measures employed in their study, which may possibly have influenced their findings

Findings from studies using other measures of PPC

Boudreault-Bouchard *et al.* (2013) tested whether psychological distress could be predicted by constructing individual growth models to examine change over time in parental practice. In their study, PPC, measured using the Parental Emotional Support and Coercive Control Questionnaire (Deschenes, 1997), was strongly significantly positively related to psychological distress, such that the more PPC increased, the more psychological distress increased over time (between baseline and four year follow up) (r = .71, p<.001). Sher-Censor *et al.* (2011) developed a PPC scale based upon the Block Child Rearing Practices Report (Rickel and Biasatti, 1982). They also found a moderately strong positive relationship between PPC and depression over time.

In contrast, Van der Bruggen *et al.* (2010) did not find a relationship between PPC and any psychological difficulties. They rated PPC using an observational coding system (Siqueland, Kendall and Steinberg, 1996), and whilst they did not report an association between PPC and negative symptomology, they did, however, find a relationship between higher levels of maternal warmth and anxiety/depression.

1.3.8. Cultural Considerations: Stability of effect over time

Findings from studies using the Psychological Control Scale

The greatest inconsistency across the studies reviewed here was the reported findings of a lagged effect. Two studies did not report a presence of lagged effect (Albrecht *et al.*, 2009 and Conger *et al.*, 1997), while Rogers *et al.* (2003) stated that direction of effect could not be predicted using the longitudinal data. These findings are contested by Loukas (2009) and Wang *et al.* (2007). In addition, the findings from Wang *et al.* (2007) were observed in a large-scaled study across two cultures, indicating that PPC appears to predict depressive symptomology among adolescents in both the United States and China.

1.3.9. Discussion

1.3.9.1. Discussion of results

The aim of the present review was to critically evaluate the evidence from existing empirical literature on the relationship between parental psychological control and adverse psychological outcomes over time. All papers that met inclusion criteria for the present literature review sampled children and adolescents and therefore findings do not provide evidence regarding the impact of PPC on subsequent adult mental health. Cohort studies tended to follow up their research after a 12 month gap, meaning that whilst findings could be reported as stable or unstable over time, there remains a lack of evidence regarding the relationship between PPC and adverse psychological consequences in the long term. This therefore limits conclusions that can be drawn

about long-term consequences of PPC. Nonetheless, Barber *et al.* (2005), Pettit *et al.* (2001) and Boudreault-Bouchard *et al.* (2013) followed participants over a longer duration or with longer intervals between data collection and their findings do suggest that PPC may have more lasting negative psychological consequences. However, this observation is based on evidence from only three studies and further long-term studies are necessary if we are to be able to draw firm conclusions in this regard.

Based on the findings considered in the present review, there is preliminary evidence to indicate a relationship between PPC and adverse psychological outcomes. In summary, eight studies reported a significant positive relationship between PPC and depression, two studies reported a significant positive relationship between PPC and anxiety, while four studies reported gender specific parenting effects of PPC on reduced psychological wellbeing. There were, however, inconsistencies in the findings of the reviewed studies, which may be due to methodological, sampling and cultural variations.

Emotion regulation was directly measured in just one of the studies reviewed, which did not find any significant associations with PPC. Given the existing literature that surrounds parental control and externalising behaviour, it would seem pertinent to look closely at whether maladaptive emotion regulation is related to PPC. This area has been somewhat overlooked in the existing body of empirical research into PPC. Findings from cross sectional research suggests that 'non-autonomous regulation' may occur in the form of introjection and reduced well-being in children occurring as a result of parents' conditional regard. This requires replication over multiple time points in order to more carefully investigate the phenomenon (Roth, Assor, Deci, Niemiec, 2004).

A recurring theme in the reviewed studies was inconsistent findings regarding the direction of the relationship between PPC and reduced psychological wellbeing, with a few studies suggesting that child effects may have influenced study findings. Children with symptoms of reduced psychological wellbeing were said to hold a cognitive bias and therefore over report PPC (Rogers *et al.* 2003, Albrecht *et al.*, 2007), suggesting that future studies should include measures that can assess the potential influence of cognitive bias, to establish more clearly whether or not this is truly a confounding variable in research into PPC.

There appeared to be some ambiguity in terms of cross cultural differences. Wang *et al.* (2007) reported the construct of PPC to be consistent across both the American and Chinese sample. However, Sher Censor *et al*. (2011) described how their specific subsample of Mexican-American adolescents appeared to view parental control as an indirect form of caring, therefore indicating a possible difference in the way PPC is perceived in different cultures. Further research to help development of a cross cultural theoretical model would be helpful in order to clarify whether or not there are cultural differences in how the construct of PPC is understood.

1.3.9.2. Parent specific variables

Whilst Albrecht *et al.* (2007) observed heightened levels of PPC in fathers, they also concluded that their limitations prevented them from drawing firm correlations or conclusions. They discussed the combined impact of both parents using PPC as being an important indicator of internalising behaviours in adolescents. They also inferred that

cognitive bias was likely to be influencing their findings. This therefore leaves an unclear conclusion as to the outcome of the study.

1.3.9.3. Parental Psychological Control over time

Quality assessment of the literature highlighted findings from Barber *et al.* (2005) as particularly noteworthy due to the fact that they collected data over multiple time points with two different age cohorts and reported a small but significant correlation between PPC and adverse psychological outcomes over the four time points. The design employed in their study was robust, with a large stratified sample, which lends credibility to the reported conclusions. The authors also separated out their analysis so that cohort and gender variables could be closely examined. In terms of age variables, only a significant positive relationship was identified between paternal PPC with the older of the two cohorts studied. It is difficult to explain why there is a difference over time for younger and older cohorts at different times. It appears that PPC in older adolescents results in more significant negative psychological consequences. This could lead one to suggest that autonomy support becomes more important as children age. Further research is required in order to clarify this further.

Albrecht *et al.* (2007) recruited an almost all white population and used an 'internalizing behaviour subscale' as a rating of low mood. It is important to note that a lack of predictive power means that findings from this study must be interpreted with caution. It is possible that the measure used here to capture internalizing behaviour was not discrete enough to capture depressive symptomology or a discrete psychopathology.

Conger *et al.* (1997) also reported a lack of lagged effect. Their data was collected between 1989 and 1991 and, again, consisted of a white only population. The quality framework rating used in the present review identified limitations in the sampling of participants which suggests that again the findings should be interpreted with caution and may have questionable external validity.

In terms of findings by Rogers *et al.* (2003), their study design was robust and seemingly valid, and benefited from multiple respondents. The focus of their analysis was on describing how already existing internalising symptoms led to cognitive bias of the adolescents, which influenced them in over reporting PPC. This conclusion does not appear to be clearly based on empirical findings, and may benefit from further examination in future studies. The sample in this study was limited to a region in south east of the U.S.A, which also limits the external validity of the findings.

1.3.9.4. Role of cognitive bias in reporting PPC

Two studies indicate that cognitive bias influences increased reporting of PPC (Rogers *et al.* 2003, Albrecht *et al.*, 2007). The literature remains unclear in terms of what processes result from or contribute to PPC in terms of direction of results and possibility of cognitive bias.

1.3.9.5. Limitations and risk of study bias

1.3.9.5.1. Methodological limitations

Methodological limitations of the studies meant that synthesising the findings of the present systematic review was difficult. A number of different measures were used to capture PPC, and the quality assessment framework identified limitations in sampling methods across several studies, which reduced the ability to generalise these findings. The most common sampling limitations identified were; the small number of participants recruited (sample size was too small) and the representativeness of the population (participants were drawn from a relatively specific population). For instance Conger *et al* (1997) recruited a white only population in Iowa, US (selected from a limited number of schools). In terms of sample size, Hauser Kunz and Grych (2013) sampled only 90 participants. Van der Bruggen *et al.* (2010) sampled even fewer children with only 35 participants.

Critiques of research on PPC have identified that studies have focused mainly on adolescent populations and to a much lesser extent on either younger children or those entering early adulthood. This limits the extent to which findings may be generalised to older populations, and suggests a need for larger scale studies, which examine the effects of PPC across the lifespan.

1.3.10. Clinical Implications and future directions

Conflicting findings indicate that it would be helpful to extend previous research in this area. There are no longitudinal data in this area in the UK, and it would be useful,

therefore, to repeat such research. In order to reduce selection bias, it would be important to consider recruiting from multiple regions using a robust sampling method, such as stratified sampling from a census population. Barber *et al.*'s (2005) study would be a useful framework from which to develop more robustly designed future studies. In terms of conceptual robustness, it would also be important that future researchers strive to reach a consensus regarding which measurements provide the best measure of the PPC construct. This would allow for greater consistency when attempting to compare findings between studies.

Studies that have suggested cognitive bias as responsible for heightened perception of PPC should be more closely examined. This is because prior research did not set out to explicitly test this, and drew conclusions from research that set out with different aims. It would aid the evidence base if this hypothesis were to be explicitly tested rather than inferred.

Some of the studies presented in the present review commented on the role of autonomy supportive parenting as having better emotional outcomes for the participants in their research. This appears to suggest beneficial effects of the parental style of autonomy support and indicates that this variable is worthy of further study in the future.

The clinical utility of the present review is not simply in identifying the emotional consequences of psychopathological symptoms of PPC, but in also drawing out the disparity in the way PPC has been measured as a construct. It has also revealed the narrow sample age of participants across the evidence base. Whilst adolescence is viewed as a critical time for emotional development, it is evident that there is no data

to inform the literature on longer term psychological sequelae in adults. Given the lack of data on the relationship between PPC and psychological wellbeing in working age adults it would be helpful to conduct longitudinal research with older cohorts. This would allow researchers to explore cohort differences and to identify the way in which the impact of PPC might manifest itself over longer time periods.

The present review also highlighted the absence of any longitudinal data on PPC and its impact on emotion regulation. Theoretical and empirical literature highlights emotion regulation difficulties as a common factor in mental health difficulties. Therefore measuring whether emotion regulation difficulties are directly associated with PPC in future studies may provide a useful contribution to the literature.

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Chapter 2

Is unconditional positive self-regard a predictor of posttraumatic growth following adversity?

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(See Appendix 1 for instructions for authors)

2.1. Abstract

The study sought to identify whether unconditional positive self-regard is a predictor of posttraumatic growth (PTG) following the experience of a traumatic life event. 144 participants completed an online questionnaire to assess the experience of traumatic life events, posttraumatic stress, unconditional positive self-regard (UPSR) and PTG (PTGI and CIOQ-P) (Time 1). Three months later 76 of the participants completed the same measures (Time 2). Multiple regression analysis revealed that higher scores on intrusive cognitions and Unconditional Positive Self Regard at T1 predicted higher scores on PTG at Time 2. Further analysis revealed that UPSR at Time 1 mediates the relationship between intrusive cognitions and PTG (at Time 2). Limitations of the study are noted and clinical implications and future directions are discussed. Specifically, it is noted that results are consistent with person-centred theory and practice for the facilitation of PTG.

Keywords: *Traumatic/Adverse life event, Posttraumatic growth, unconditional positive self-regard, longitudinal.*

2.2. Introduction

2.2.1. Trauma

The lifetime prevalence of exposure to a traumatic life event in the general population is extremely high, with 80.8% of individuals experiencing at least one traumatic event in a recent prevalence study (Frans, Aberg, Rimmo and Fredrikson, 2005). The experience of a traumatic or adverse life event can, for some individuals, result in post-traumatic stress disorder (PTSD) (American Psychiatric Association, 2013). Frans *et al.* (2005) reported that 5.6% of their sample met PTSD diagnostic criteria.

Shattering of previously held assumptions about the self and the world are described (Janoff-Bulman, 1992). As such recovery from PTSD has been understood in terms of the need to rebuild the assumptive world. More recently, it has been argued that this same process can give rise to posttraumatic growth (PTG) (Tedeschi and Calhoun, 2004; 2006). PTG describes how the rebuilding process can lead to the development of new perspectives on the self and the world. This rebuilding process is seen to go beyond a person's previous levels of functioning, such that the person is aware of newly discovered strengths (Janoff-Bulman, 2004).

Research surrounding posttraumatic growth has seen a surge of interest over recent years. Organismic Valuing Process (OVP) Theory (Joseph & Linley, 2005) is an explanatory model of PTG, which stems from the theory of shattered assumptions (Janoff-Bulman, 1992). OVP theory proposes that PTG arises out of a person's cognitive struggle to resolve the challenged assumptive world. This struggle is understood using

Horowitz's (1976) information processing theory of how processing traumatic experiences involves alternating cycles of intrusions and avoidance (Horowitz, 1976). As such it is proposed that the presence of intrusive cognitions typical of posttraumatic stress is indicative of cognitive processing and is necessary for the development of PTG.

Evidence supports the prediction that intrusive thoughts are related to PTG, because it has been suggested it allows individuals to make sense of an event and re-build shattered assumptions (Cho and Park, 2013). OVP theoretical position aligns with this view; that whilst intrusive cognitions in a post-traumatic stress response, may be distressing, it can be a natural feature of a process of making sense of the traumatic event. According to OV theory, the presence of some symptoms of a post-traumatic stress response such as intrusive cognitions indicates that affective-cognitive processing is occurring. Negative affective states are observed when appraisal-processing of intrusive cognitions fail to resolve discrepancies between the trauma-related intrusive cognitions and the individual's existing assumptive world, (Joseph, 2012). When appraisal-processing allows for some degree of resolution of such cognitive discrepancies, it is seen to indicate that the person is actually working through intrusive cognitions in a process, which over time may lead to post-traumatic growth (Stockton et al., 2011; Joseph et al., 2012). The suggestion that constructive processing of intrusive cognitions may help the individual move forward from the traumatic experience is in line with findings of a meta-analytic review, which found that greater PTG was related to more intrusive thoughts (Hegleson, Reynolds and Tomich, 2006).

2.2.2. Self-acceptance according to person-centred theory of personality development

However, OVP theory also provides an account of how it is through the person's ability to organismically value their experiences that PTG arises. As such, it is necessary that the person has a healthy level of unconditional positive self-regard.

The Rogerian concept of conditional self-regard is seen to arise as a consequence of introjections of conditional regard from significant others, most typically parents. According to the person-centred model, when positive regard is communicated conditionally, the child internalises these conditions of worth and over time, compliance with these introjected values replaces the developing individual's ability to positively value and accept his or her own experiences (self-experiences). Person-centred theory views vulnerability to psychopathology as developing when a person's self-regard or valuing of self becomes increasingly conditional upon complying with the standards or values demanded by the introjected conditions of worth. Developing insight into these conditions of worth and loosening the person's need to relate to their experiences in a highly contingent manner is seen as a key goal of person-centred psychotherapy. As the individual learns to value and accept his or her subjective experiences in a less contingent or non-contingent manner, they are described as developing less-conditional or unconditional positive self-regard (Rogers, 1959; Patterson and Joseph, 2006, 2013).

Unconditional positive self-regard (UPSR) has been identified as a less contingent form of self-acceptance, (Patterson and Joseph, 2006). Rogers' theoretical definition of this UPSR states that:

"When the individual perceives himself in such a way that no self-experience can be discriminated as more or less worthy of positive regard than any other, then he is experiencing unconditional positive self-regard" (Rogers, 1959, p.209).

Drawing upon this definition, Patterson and Joseph (2006) developed the unconditional positive self-regard scale, which distinguishes two facets of unconditional positive self-regard. The first element, 'self-regard', reflects the expression or withholding of positive regard towards oneself. The second facet, 'conditionality', refers to whether an individuals' perception of self-worth is determined by internalized conditions of worth (Patterson and Joseph, 2006).

The construct of UPSR centres on unconditional self-acceptance; one's sense of self-worth not being tied into specific domains. Considering this construct within the OV theory framework, there appears to be no prior research on whether the same positive association documented between PTG and 'acceptance' (Hegleson *et al.*, 2006) can be seen for UPSR. Within the OV theory of posttraumatic growth, one might consider a person high in UPSR to look to be more self-accepting (more accepting of their 'self-experiencing') following a traumatic/adverse life event.

2.2.3. The present study

There remain relatively few longitudinal studies in the area of PTG. Furthermore, previous research identifying relationships between 'active ingredients' associated with

PTG have been consistently supported for only a small number of factors, of which research on PTG and personality characteristics has been even more inconsistent (Park *et al.*, 1996; Hart *et al.*, 2008; King and Patterson, 2000; King *et al.*, 2000; Helgeson & Tomich, 2006). Therefore it would seem pertinent to study other factors that may mediate the emergence of PTG.

Mixed findings have been reported for a relationship between self-esteem and PTG, however all current studies employing a longitudinal approach to this research have used the uni-dimensional Rosenberg Self Esteem Scale (Rosenberg, 1965), (Dolbier *et al.*, 2010; Dibb *et al.*, 2009; Gunty *et al.*, 2011; King and Patterson, 2000; Tomich and Helgeson, 2006). This is a well validated scale for measuring global self-esteem but is not capable of capturing the conditionality component of self-relating. An increasing number of publications note the importance of capturing the various aspects of healthful self-relating as a multi-dimensional construct, which measures of healthy self-relating such as unconditional positive self-regard seek to do (Deci and Ryan, 1995; Patterson and Joseph, 2006).

2.2.4. Hypotheses

In line with the rationale outlined above the aim of the present study is to investigate whether:

1. Trauma will be positively associated with PTG.
2. The relationship between trauma and PTG will be mediated by unconditional positive self-regard.

2.3. Method

Ethical Approval for this study was granted by the Coventry University Ethics Committee (See Appendix 4).

2.3.1. Design

The present study employed a longitudinal design. Data collection occurred over two time points. Time 2 (T2) data was collected three months after Time 1 (T1) data. Due to the research aims stated above, examining the presence of mediating effects of PTG, a quantitative approach was used.

2.3.2. Materials

Please refer to appendix 5 for copies of the demographics form and measurement scales used.

Demographics form: (T1 only)

This form collected information on the participant in order to inform the researcher on the generalisability of the research findings to the general population. Participants were required to provide an email address in order to be contacted to complete T2 data.

The following measurement scales were used in the present study. They report sound psychometric properties and internal consistency.

Traumatic life event;

Traumatic life events were measured by administering a standard checklist of events; *Checklist of Life Events* (Blake, Weathers, Nagy, Kaloupek, Charney & Keane, 1995). The

CLE provides a checklist of 17 difficult or stressful events. Life events include natural disaster, transportation accident, and physical assault. The events detailed on the checklist are consistent with the types of experiences outlined in the DSM IV as critical event criteria that may precipitate posttraumatic stress disorder. The measure was developed for use with student and general population samples.

In a review of instruments most commonly used by traumatic stress practitioners, the *Impact of Event Scale-Revised* (IES-R) (Weiss and Marmar, 1997) was one of the most frequently used assessment tools (Elhai, Gray, Kashdan and Franklin, 2005). This measure was used alongside the participants' nominated traumatic event in order to measure this variable. This 22 item revised scale measures the extent to which a nominated life event continues to cause them difficulties. Aspects of intrusion, avoidance and hyper-arousal are measured and scores on the measure can be broken down into three subscales reflecting those domains. An example of the intrusion scale reads 'any reminder brought back feelings about it'; while an example of avoidance items read 'I avoided letting myself get upset when I thought about it or was reminded of it'; and hyper arousal items include, 'I was jumpy and easily startled'. The IES-R has been validated for use on student and general population samples and has good internal consistency reliability, with alpha co-efficients for the subscales ranging between .87-.92 for intrusion, .84-.85 for avoidance and .79-.90 for hyper-arousal (Weiss and Marmar, 1997).

Unconditional Positive Self Regard Scale (Patterson and Joseph, 2006):

This 12 item self-report 5-point Likert scale provides a measure of the person-centred construct of unconditional positive self- regard. The measure can also be broken down

into two subscales, one measuring 'self-regard' and the other measuring 'conditionality'. An example of self-regard item is, 'I feel that I appreciate myself as a person'. An example of conditionality item would be, 'Whether other people criticise me or praise me makes no real difference to the way I feel about myself'. Past literature reports good internal validity of the scale, (Patterson and Joseph, 2006) and Cronbach's alpha was reported at .88 (self-regard subscale) and .79 (conditionality subscale). No test-retest reliability was reported. A further study supports the reliability of this measure (Griffiths and Griffiths, 2013).

Positive Outcomes:

The most frequently used scales to measure PTG are the Post Traumatic Growth Inventory (Tedeschi & Calhoun, 1996) and The Changes in Outlook Questionnaire (Joseph, Williams and Yule, 1993). Effective measurement of posttraumatic growth is multi-layered. It requires the researcher to consider the critical event and the impact of this event on the individual scores on a validated PTG scale.

Changes in Outlook Questionnaire (Joseph, Williams and Yule, 1993):

Changes in Outlook Questionnaire (CiOQ; Joseph, Williams, &Yule, 1993) is a 26–item self–report measure of positive and negative psychological changes using a six–point Likert scale (1=strongly disagree; 6=strongly agree).The CiOQ has two sub–scales: positive psychological changes (11 items, e.g., "I value my relationships much more now"; "I don't take life for granted anymore"), and negative psychological changes (15 items ,e.g., "I have very little trust in other people now"; "I feel very much as if I'm in limbo").

The positive change subscale has a range of 11 to 66, and the negative change subscale a range of 15 to 90, with higher scores indicating greater reports of positive and negative psychological changes respectively. A recent study supported the factor structure, internal reliability, and validity of the measure (Joseph and Linley, 2005). It is widely used in clinical and research settings to assess growth in the aftermath of adversity. Alpha = .86-.88 for positive changes and .80-.87 for negative changes.

Post Traumatic Growth Inventory (Tedeschi and Calhoun, 1996)

This 21 item scale uses a six point Likert scale to assess 5 factors. These are relating to others, new possibilities, personal strength, spiritual change, and appreciation of life. An example item reads; 'I have a greater appreciation for the value of my own life'. There is good internal consistency with an alpha range of α=.67 - .85. Acceptable test-retest reliability was reported.

Warwick Edinburgh Mental Well-being Scale (WEMWBS) (Tennant, Hillier, Fishwick, Platt, Joseph, Weich et al., 2007).

Well-being was also measured as an additional check to confirm an association between well-being and PTG. This is because some researchers have argued that PTG based on self-report measures only provides a measure of subjective (subjectively perceived) growth, as opposed to actual growth. We therefore wanted to include a measure of well-being as a further check that PTG in our sample was associated with other positive outcomes. The WEMWBS is a 14 item scale of mental well-being and includes the measurement of psychological functioning. An example item reads 'I've been feeling good about myself'. Internal consistency was reported at α=.89.

2.3.3. Participants

Participants were recruited via two student research credit programmes. Coventry University offers the opportunity of an online recruitment programme and The University of Warwick provides opportunities for a web-link to be set up whereby anyone including non-students may complete electronic measures. The lead researcher sent out an email invitation, which was disseminated to other clinical psychology doctoral students. A link to the online study was made available on a regulated online psychological research website and a relevant, moderated psychology forum website. Both of these domains required evidence of ethical approval and the research web link was approved by website moderators, before being placed online. Participants over 18 years of age were included in the study. Exclusion criteria extended only to those whose understanding of English limited them from completing the questionnaires.

The number of participants recommended for mediation analysis via multiple regression analysis is 15 participants per predictor variable (Klein, 1998). 144 participants completed T1 data of which 77 participants completed T2 data.

2.3.4. Procedure

Participants were invited to take part in a study looking at how experiencing adverse life events can impact upon one's outlook. They were informed that the purpose of the research was to identify factors that may help people overcome adversity. Participants were also informed that they would be asked to complete the same measures one further time, three months after completing the initial data set.

All participants were recruited via online data collection. Prior to being able to proceed with the study, potential participants were required to read an information sheet containing details of the study and were also required to provide consent to participating (See Appendix 6). Their right to not participate or to withdraw themselves and their data from the study were outlined in accordance with the BPS code of ethics and conduct, (BPS, 2009) and the BPS Ethics Guidelines for Internet Mediated Research (BPS, 2013).

The online survey was created and stored via Bristol Online Surveys, which provides a secure server from which to develop and store quantitative surveys and its completed data. Upon completion of each data set, participants were automatically allocated a unique reference number at both Time 1 (T1) and Time 2 (T2). At T2, email addresses ensured an accurate match-up of both data sets and then email addresses were deleted from the raw data set in order to maintain anonymity. This resulted in the full raw data set.

2.3.5. Data Storage

No identifiable information was stored in the same location. Raw data sets were held on a password protected file during the study timeframe

2.4. Results

The present study wished to find out whether there was a relationship between a traumatic life event and posttraumatic growth over time and whether this relationship would be mediated by unconditional positive self-regard. A linear regression was performed to look for correlations between variables. Multiple regression analyses were then performed in order to examine for mediation effect. The correlational results are presented in Table 2.1. and model of mediation is displayed in Figures 2.1. and 2.2.

Following the first stage of mediation analysis the construct of unconditional self-regard was more closely examined and further mediation analysis was performed to look at the unique mediating role of positive self-regard and conditionality of self-regard. The correlational results are presented in Table 2.2 and the mediation models for positive self-regard and conditionality of self-regard are presented in Figures 2.3. and 2.4. respectively.

Finally a correlational analysis was performed to confirm a relationship between well-being and posttraumatic growth. The correlational results are presented in Table 2.3.

2.4.1. Preliminary data screening

The data were screened to determine whether they satisfied the assumptions of multiple regression analysis. Cook's D indicated that there was 1 outlier. This was removed from the dataset. An inspection of a histogram suggested that there was normality of residuals. A scattergram was generated to check for independence of residuals, no heteroscedasticity, and linearity of relationship between the predictor and

predicted variables; all three of these assumptions were met. Finally, tolerance values indicated that multi-collinearity was not excessive.

There were strong significant correlations between all predictor variables except for the correlation between IES-intrusion and conditional self-regard.

Multiple regression analyses revealed that there were significant positive relationships between trauma and growth, between positive self-regard and posttraumatic growth and between conditional self-regard and posttraumatic growth.

Table 2.1. Stage one correlations between the Impact of Event Scale-Intrusion, Unconditional Positive Self-Regard, and Posttraumatic Growth.

		T1_Total Intrusion Score	TOTAL_UPSR	T2_CIOQ Total positive score	Total T2 PTGI score
T1_Total Intrusion Score	Pearson Correlation	1	-.210*	.274*	.362**
	Sig. (2-tailed)		.012	.017	.001
	N	143	143	76	76
TOTAL_UPSR	Pearson Correlation	-.210*	1	.405**	.346**
	Sig. (2-tailed)	.012		.000	.002
	N	143	143	76	76
T2_CIOQ Total positive score	Pearson Correlation	.274*	.405**	1	.663**
	Sig. (2-tailed)	.017	.000		.000
	N	76	76	76	76
Total T2 PTGI score	Pearson Correlation	.362**	.346**	.663**	1
	Sig. (2-tailed)	.001	.002	.000	
	N	76	76	76	76

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

2.4.2. Stage 1 Correlational analysis

Correlational analysis revealed a significant positive relationship between Intrusive thoughts at Time 1 and post-traumatic growth at Time 2; CIOQ-positive (r = .274, p <.05); PTGI (r = .362, p ≤.001). A significant positive relationship was also found between UPSR at time 1 and post-traumatic growth at time 2; CIOQ-positive (r = .405, p < 0.01); PTGI (r = .346, p < .01). Finally, there was a significant negative relationship between Intrusive thoughts and UPSR at Time 1 (r = -.210, p<.05).

2.4.3. Stage 1 mediation analysis

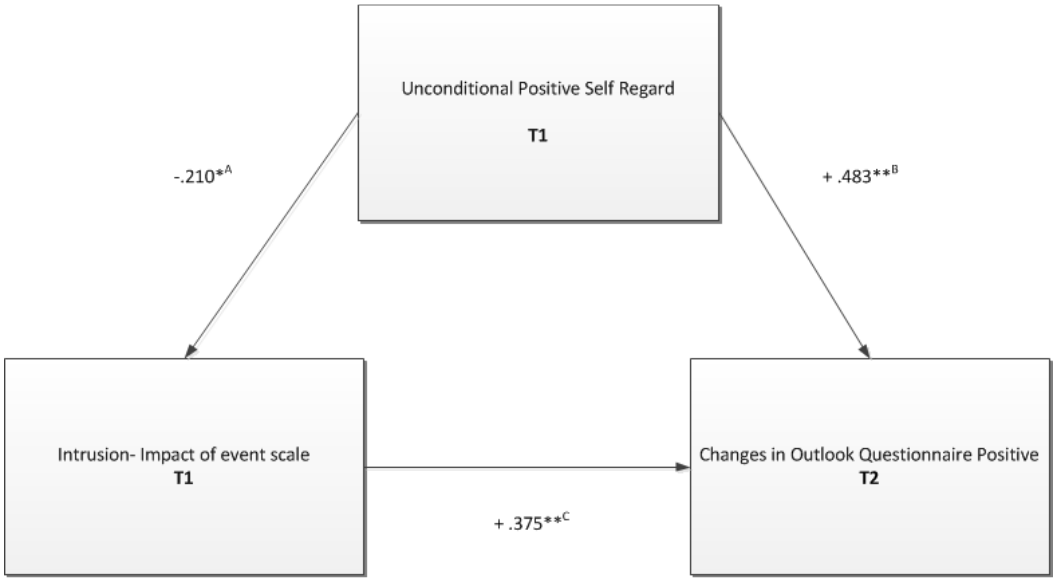

Figure 2.1. Mediation Analysis of unconditional positive self-regard (Total UPSR) at Time 1 and Posttraumatic growth (CIOQ-positive) at Time 2.

A t (141) = 2.55, *P*= .012; B t (73) = 4.82, *P* = <.001; C t (73) = 3.74, *P* < .01

*p< .05; **p<.01

The above mediation analyses were examined over time by employing a Z score contrast calculation. Z = 2.21, *P* = .027 (two-tailed). Therefore UPSR has a significant mediating role in the emergence of PTG over time.

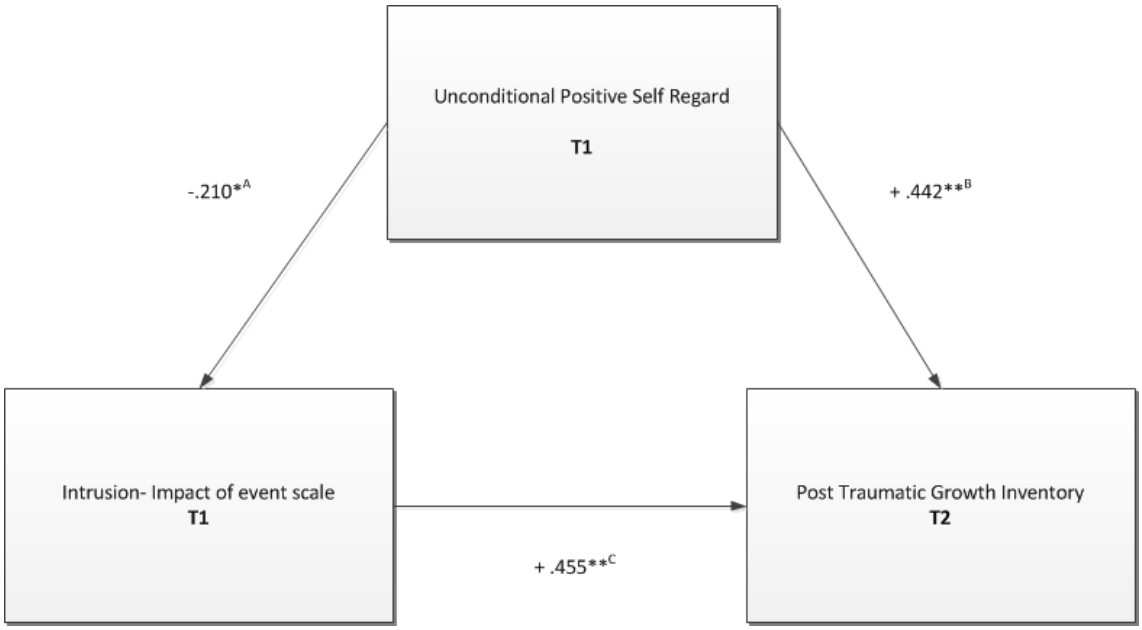

Figure 2.2. Mediation Analysis of unconditional positive self-regard (Total UPSR) at Time 1 and Posttraumatic growth (PTGI) at Time 2.

A t (141) = 2.55, *P* = .012; B t (73) = 4.47, *P* < .001; C t (73) = 4.60, *P* < .001

*p< .05; **p<.01

The above mediation analyses were examined over time by employing a Z score contrast calculation. Z = 2.17, *p* = .030 (two-tailed). These findings support those reported using the CIOQ. UPSR remains a mediating factor in the emergence of PTG over time.

Table 2.2: Stage two correlations between Impact of event- intrusion, self-regard, conditionality of self-regard, and posttraumatic growth

		T1_Total Intrusion Score	Total T1 Self Regard Subscore	Total T1 Conditionality Score	T2_CIOQ Total positive score	Total T2 PTGI score
T1_Total Intrusion Score	Pearson Correlation	1	-.215**	-.108	.274*	.362**
	Sig. (2-tailed)		.010	.199	.017	.001
	N	143	143	143	76	76
Total T1 Self Regard Subscore	Pearson Correlation	-.215**	1	.321**	.381**	.376**
	Sig. (2-tailed)	.010		.000	.001	.001
	N	143	143	143	76	76
Total T1 Conditionality Score	Pearson Correlation	-.108	.321**	1	.293*	.171
	Sig. (2-tailed)	.199	.000		.010	.140
	N	143	143	143	76	76
T2_CIOQ Total positive score	Pearson Correlation	.274*	.381**	.293*	1	.663**
	Sig. (2-tailed)	.017	.001	.010		.000
	N	76	76	76	76	76
Total T2 PTGI score	Pearson Correlation	.362**	.376**	.171	.663**	1
	Sig. (2-tailed)	.001	.001	.140	.000	
	N	76	76	76	76	76

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

2.4.4. Stage 2 correlation analysis

Correlational analysis revealed a significant positive relationship between self-regard at Time 1 and PTG at Time 2 (CIOQ and self-regard, *r* = .381, *p* <.01; PTGI and self-regard, *r* = .376, p< .01). A significant relationship was found between conditionality of self-regard and only one of the PTG measures (CIOQ and conditionality of self-regard, r = .293, p<.05; PTGI and conditionality of self-regard, r = .171, p = .140). A significant negative relationship was also found between intrusive thoughts and self-regard at Time 1 (*r*= -.215, *p*< .01).

2.4.5. Stage 2 mediation analyses

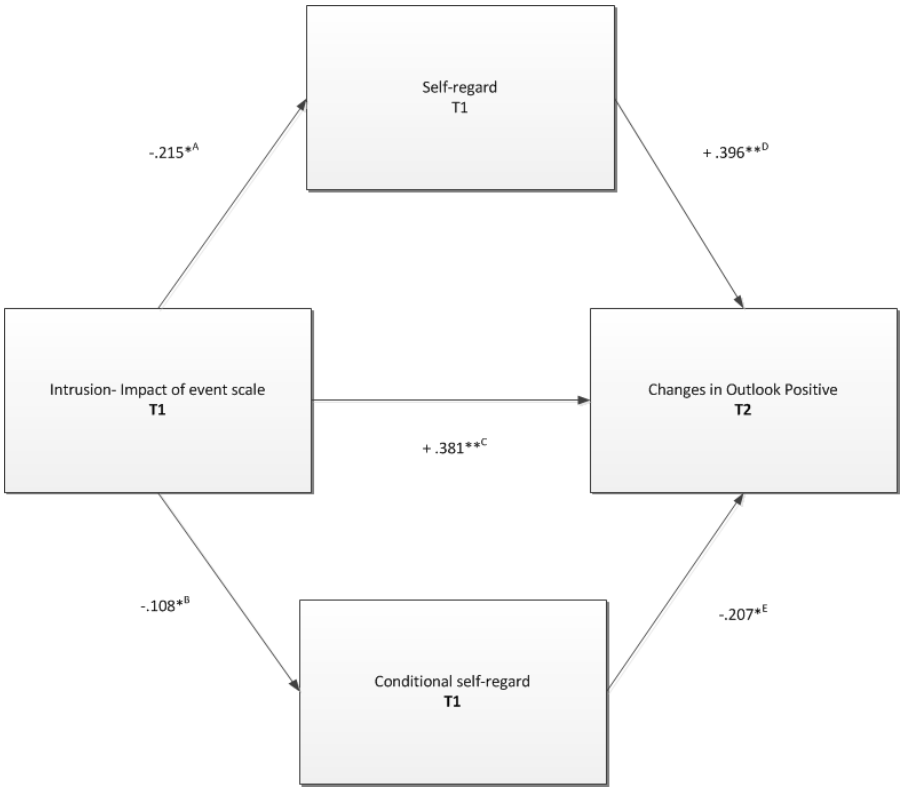

Figure 2.3. Mediation analysis: mediating role of self-regard and conditionality of self-regard with the emergence of posttraumatic growth (Change in Outlook Questionnaire - Positive).

A t (141) = 2.62, *p* = .010; B t (141) = 1.29, *p* = .199; C t (72) = 3.81, *p* < .001; D t (72) = 3.78, *p* = <.001; E t (72) = 2.00, *p* = .049.

The above mediation analyses were examined over time by employing a Z score contrast calculation. As can be seen in figure 3 the following results were obtained; self-regard; Z = 2.10, p = .036 (two-tailed); conditionality of self-regard; Z = 1.06, p = .290 (two-tailed). The mediating effect of self-regard remained significant over time. The mediating effect of conditionality of self-regard was not significant over time.

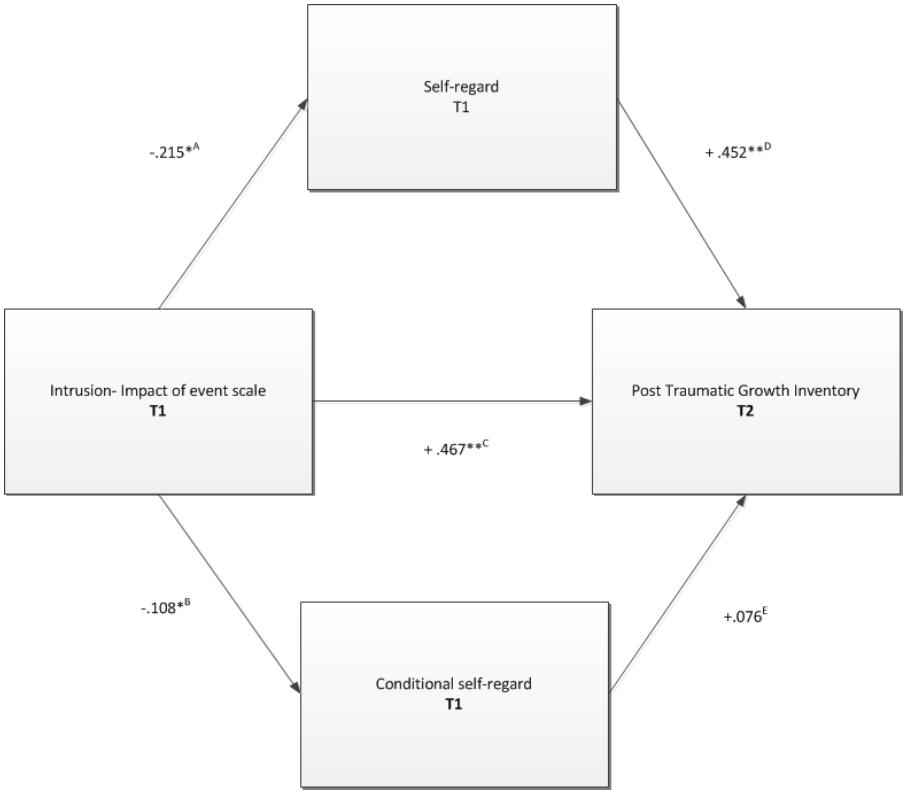

Figure 2.4. Mediation analysis: mediating role of self-regard and conditionality of self-regard with the emergence of posttraumatic growth (PTGI).

A t (141) = 2.62, *p* = .010; B t (141) = 1.29, *p* = .199; C t (72) = 4.81, *p* < .001; D t (72) = 4.43, *p* = <.001; E t (72) = 0.76, *p* = .449.

The above mediation analyses were examined over time by employing a Z score contrast calculation. The following results were observed; self-regard; Z = 2.21, p = .027 (two-tailed); conditionality of self-regard; Z = 0.55, p = .586 (two-tailed). The mediating effect of self-regard remained significant over time. The mediating effect of conditional self-regard was not significant over time.

2.4.5.1. Further analysis

Table 2.3. displays correlations between Well-being (WEMWBS) and post traumatic growth (PTGI and CIOQ-positive) Well-being correlated positively and significantly with both measures of growth; PTGI (*r* = .287, *p* = .012); CIOQ-positive (*r*= .353, *p*= .002).

Table 2.3. Correlations between well-being and posttraumatic growth

		T2_Total WEMWBS score	Total T2 PTGI score	T2_CIOQ Total positive score
T2_Total WEMWBS score	Pearson Correlation	1	.287*	.353**
	Sig. (2-tailed)		.012	.002
	N	76	76	76
Total T2 PTGI score	Pearson Correlation	.287*	1	.663**
	Sig. (2-tailed)	.012		.000
	N	76	76	76
T2_CIOQ Total positive score	Pearson Correlation	.353**	.663**	1
	Sig. (2-tailed)	.002	.000	
	N	76	76	76

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

2.5. Discussion

2.5.1. Discussion of findings

The present study examined whether there was a direct relationship between trauma and growth. It was predicted that the presence of such a relationship would be confirmed and further research questions were explored; namely whether this relationship would be mediated by unconditional positive self-regard.

Initial correlation analysis revealed a significant positive relationship between trauma (intrusive cognitions measured on the Impact of Events Scale) and post-traumatic growth over time. When UPSR was considered as an overall construct, it was found to significantly mediate the relationship between trauma and post-traumatic growth over time. Both of these findings support the main hypotheses of the present study.

A second stage of analysis found that self-regard at T1 was significantly and positively related to growth at T2. Conditionality at T1 was also found to be significantly positively related to PTG at T2. When mediation analysis was performed for UPSR subscales of self-regard and conditionality at T1, there were different, noteworthy findings. In brief, UPSR self-regard was found to significantly mediate the emergence of PTG over time. This mediating effect was not, however, found for UPSR conditionality. Methodological limitations may need to be considered for these reported findings.

2.5.2. Trauma and Growth

The field of posttraumatic growth considers that psychological change should not solely aim to achieve an absence of symptoms but should instead promote movement towards positive psychological growth. It also acknowledges that ‘in actuality, life consists of ups

and downs, so we need to understand the interplay of negative and positive', (Joseph, 2012).

Building upon previous research demonstrating a direct relationship between traumatic life events and posttraumatic growth (Cho and Park, 2013; Currier, Mallot, Martinez, Sandy, and Neimeyer, 2012; Frazier, Conlon, Glaser, 2001), the findings from the present longitudinal study supported this observation. Findings from the present study remained significantly associated over both time points. The psychometric scales used to capture traumatic life events measured the perceived impact, taking into account intrusive thoughts associated with the event, avoidance of things associated with the event and hyper-arousal levels. Therefore the direct relationship reported between trauma and growth refers not only to the exposure to a traumatic life event but also the impact of the event. This therefore adds weight to the theoretical position, that in order to experience posttraumatic growth, one must also embrace the distress and negative journey associated with the event before being able to benefit from positive changes (Janoff-Bulman, 2004; Joseph, 2012; Tedeschi and Calhoun, 1995, 1996).

Findings from the present study suggest that the experience alone of a traumatic event, is sufficient to lead a person to re-evaluate what is important to them and to develop a greater appreciation for things that they hadn't previously done (Janoff-Bulman 2004). The present study wanted to identify factors that may also mediate this direct relationship. Existing literature has demonstrated a more specific link between intrusive thoughts and PTG, therefore analysis in the present study focused on this element of the impact of the traumatic/adverse life event.

The timeframe between data collection points did not allow for long-term evaluation of trajectory of the influence of UPSR on PTG. However it was feasibly conducted as a longitudinal study because of the way in which it allowed the researcher to look at mediating influence over two time points.

2.5.3. Unconditional Positive Self-Regard and PTG

A number of studies have examined whether there is a relationship between healthy self-relating and posttraumatic growth with mixed findings (Dolbier, Smith, Jaggars, Steinhardt 2010; Dibb, 2009; Gunty, Frazier, Tennen, Tomich, Tashiro, & Park, 2011). However, many of these studies have relied on the use of uni-dimensional measures of self-worth, or self-esteem, making it difficult to establish whether the more subtle aspects of self-regard were playing a role in any emergence of PTG. The present study sought to use the person-centred construct of unconditional positive self-regard, which captures two domains of healthy self-relating. Regression analysis was performed for all predictor variables, however, the final mediation model tested was the influence of UPSR on both measures of PTG. This was further explored by separately examining the mediating role of both elements of UPSR (conditionality and positive self-regard). The analysis was performed in this manner in order to confirm the presence of relationships, before examining the hypothesised mediation model. Variables not tested in the mediation model (well-being measured by the WEMWBS) were only excluded from the mediation analysis due to it not being part of the main focus of the study. Instead it was included only in the preliminary analysis as a cross check against the theoretical position, which assumes that PTG is associated with well-being.

The present study was able to confirm a significant positive relationship between unconditional positive self-regard and posttraumatic growth, and a significant mediating effect of unconditional positive self-regard in the relationship between trauma and growth. In terms of the UPSR subscales, while a mediating role was demonstrated for the self-regard subscale, this was not the case for the conditionality subscale. However, data did reveal a significant positive association between conditionality and PTG, suggesting that this is nonetheless a pertinent variable to consider when trying to understand the relationship between healthy forms of self-relating and post-traumatic growth.

2.5.4. Methodological Limitations

2.5.4.1. Limitations of sample

The self-selected sample was made up a disproportionate number of females (81% at Time 1; 88 % at Time 2). The ethnic diversity of the sample was also not representative of the local or general population, meaning that the generalizability of the present study may be limited.

Interestingly, many previous studies have chosen to focus on a single traumatic life event. A positive significant direct relationship between trauma and growth in the present study demonstrates that perceived impact of any traumatic event is the most pertinent aspect to consider in the resultant outcomes of trauma rather than necessarily separating out traumatic life events.

2.5.4.2. Online recruitment

Whilst the ethical guidelines for conducting online mediated research were adhered to, it remained important to consider that the present study recruited participants in an indirect way. As with all online studies this poses slightly different considerations than face to face recruitment. Namely, the lack of face to face contact between the lead researcher and participants meant that there was not an opportunity to ask questions that may have arisen from the nature of physically being available to do so. This was accounted for as much as possible by providing participants with the lead researcher's contact details, and in a few instances participants did make email contact after completing the research. No requests were made from participants to withdraw their data, but a couple of participants expressed uncertainty regarding whether their chosen life event was sufficiently adverse to be included in the study. This raises an important discussion point, particularly in terms of the way the adverse life event was captured. In fact it is not the adverse life event itself that is of pertinence but indeed the perceived impact that this event has had on a person's life that determines whether or not it was traumatic. Varying levels of resilience or support systems along with a range of other variables may leave a person feeling a sense of being able to cope, differing sense of mastery and levels of optimism, whereas a person without such systemic factors available to them may experience the same adverse event and perceive the impact of the event to be far worse.

Some participants provided additional details alongside their chosen life event, which indicated they might be considered within a clinical subset of the population. Whilst this was a research study looking at the general population, it may also be seen that a representative spread of 144 members at T1 of the general population would include a number of people who would meet the criteria of a mental health diagnosis. Again this

raises an ethical dilemma in conducting the present study as an online study, as participants were not able to approach the lead researcher in a face to face forum. However, signposting was provided at the end of the online study in the instance that anyone completing the study wished to access an appropriate support service.

2.5.4.3. Other methodological considerations

The timeframe of three months between data collection points did not allow for long-term evaluation of trajectory of the influence of UPSR on PTG, which would have been helpful if study time constraints were not present. However, it can be argued that it was feasibly conducted as a longitudinal study because of the way in which it allowed the researcher to look at mediating influence over two time points.

The present study paid little attention to the timing of participant's traumatic life event. Whilst it is accepted that participants may have been experiencing differing levels of post-traumatic stress response depending on the time since their reported event, this study aligned itself with the theoretical stance, that the key factor involved in measurement of traumatic life event, is an individual's perceived impact of that event. Therefore the time elapsed since the experience of such event is less important. Additionally in terms of examining a mediation model, the aim present study was to be able to assess whether the presence of UPSR at first data collection point could predict and statistically mediate the likelihood of PTG at the second data point. This reduced the relevance of incorporating or separating out data by the time elapsed since the traumatic life event.

2.5.5. Clinical Implications

The purpose of the present study was to investigate the influence of unconditional positive self-regard in the development of PTG following the experience of a traumatic/adverse event. Many current psychological interventions offered to clients who have struggled with mental health difficulties following a traumatic life event are offered treatment that will remove their pathological symptoms and leave them at a baseline recovery state.

There is a breadth of literature which highlights how the presence of well-being is a preventative factor for re-lapse and recovery from trauma. In light of the present study findings demonstrating the mediating role of positive self-regard in the emergence of posttraumatic growth, it seems important to account for this when considering therapy for clients accessing mental health services. Current National Health Service strategy promotes the notion of providing a service that promotes well-being and offers preventative services rather than solely re-active services. Whilst the literature on posttraumatic growth demonstrates that a person benefits from time to work through and experience the pain and distress associated with the experienced traumatic event, it is also apparent that other important variables can facilitate recovery, which then lead to growth. The present study supports the idea that in order to achieve growth, the development of positive self-regard is necessary. Clinical interventions trying to facilitate posttraumatic growth could incorporate a focus on positive sense of self-worth. Person centred therapy specifically aims to facilitate unconditional positive self-regard.

2.5.6. Recommendations for future research

It seems important to develop the literature base on the clinical utility of the present study and the body of literature that extends beyond a recovery model. It would be useful to look at measuring positive outcomes in individuals receiving treatment for psychological trauma, which incorporated growth facilitation compared to clients receiving treatment as usual. Given the literature that highlights the preventative power of developing protective factors such as well-being and positive self-regard, it would be an important step in developing or extending existing interventions that hold an evidence based and that are in line with government agenda.

The present study has demonstrated an important mediating relationship between positive self-regard and PTG. Future research contributions examining mediating factors that facilitate PTG would have important clinical implications in the field of clinical psychology. This would also support a move towards delivering preventative clinical interventions.

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Chapter 3

A reflective account of the personal and professional learning taken from undertaking a thesis.

Word Count: 2678

(Excluding references)

3.1. Abstract

The present paper considers what led me to undertake research in the area of posttraumatic growth. A reflective account and learning as a result of undertaking an empirical study and systematic literature review is presented. This is reflected upon from two positions. Firstly my personal growth as a result of undertaking the thesis and secondly my professional growth and reflections about becoming an autonomous practitioner. The latter topic is also considered within my placement working environment, which ran parallel to writing the thesis.

3.2. Introduction

The following reflective paper will look closely at my own experience of growth over the past 18 months in terms of both personal and professional development; considering the growth that I have noticed whilst undertaking a large-scale research project on the topic of posttraumatic growth.

The overarching themes on this journey can be summarised in a few key areas;

- Personal growth and reflections whilst undertaking a thesis
- Professional growth as a result of my learning from the process of researching for and writing a doctoral thesis.

3.3. Developing an interest in posttraumatic /adversarial growth

My interest in self-development, through establishing greater self-awareness and in turn personal growth has been a multi-layered endeavour. As a prelude to my interest in PTG, I have maintained a longstanding interest both on a personal level and as a clinician in the many ways in which people respond to and manage difficult life events. In my clinical role, where I often work with clients who are experiencing a significant amount of psychological distress, I began to wonder about the clients who were able to make good use of psychological interventions. I read widely around the topic of posttraumatic growth and began to reflect on my own experiences of growth in the face of adversity (Tedeschi and Calhoun, 1996; Joseph, Williams and Yule, 1993, Joseph 2012). I developed further interest in finding out about what were already considered to be effective predictors of growth (Hegleson, Reynolds and Tomich, 2006) and

reflected on which of these factors might be incorporated for my own increased growth and well-being.

The middle stage of my time on the clinical psychology doctorate presented different and unique challenges to overcome. I had achieved a clearer sense of what my 'rules for living' (Fennel, 1997), and internalised/introjected rules of sense of self (Rogers, 1959) were and this awareness was developed further with my increasing knowledge about my chosen thesis topics.

Developing self-awareness about my internalised sense of self/self-regard extended to reflecting upon contingent self-regard in the domain of academic achievement. I began to reflect on how I might go about choosing a thesis topic and more importantly how I might 'do it justice' given the inherent time restrictions associated with the submission deadline. Reflecting on how these sets of challenges were linked to my own self-regard, and indeed contingent sense of self, I began to think about the role of self-acceptance. Following clinical exposure to, and academic teaching of self-compassion, I recognised that this could also be an important area to develop. Undertaking a mindfulness course during this period of training provided me with an opportunity to tune into physical, emotional and cognitive reactions to my surroundings and experiences. This was a very helpful way for me to test out how I might relate to myself in a different and non-judging way.

I noticed how, along with my interest as a practitioner in humanistic approaches and theory, as well as from reading around the topic of PTG, that this could provide a helpful framework to consider my research. Reading about person centred personality theory (Patterson and Joseph, 2007) and self-determination theory (SDT) (Ryan and Deci, 2000)

set the appropriate theoretical context from which to begin examining and answering my research questions and hypotheses.

3.4. Personal growth; reflections on undertaking an empirical piece of research

Towards the end of my first year on the doctorate, I began formulating ideas for undertaking a piece of empirical research. I was drawn to thinking about something that would inform or develop the evidence base around working clinically with people who had experienced adversity or trauma. My recent interest in contributing to the field of positive clinical psychology (where equal attention is given to knowledge about an individual's strengths and what works well, in addition to looking to reduce psychopathology, was a springboard for my research interest.

3.4.1. Setting up and undertaking research on posttraumatic growth

Finding an appropriate research question for my empirical study which was theoretically grounded felt like a natural extension of the reading I had done around the topic. On the other hand, I noticed myself feeling daunted by the prospect of setting up an online study and establishing procedures for collecting data and ensuring that both data points were completed. I noticed myself worrying about recruiting a large enough sample size and wondered about how not having face-to-face contact with potential participants would affect the recruitment process. After the first data collection timeframe ended, I

was very grateful that 144 people had kindly taken time out of their lives to help me with my research. I felt humbled by their generosity with their time.

Whilst collating the data I had collected into the statistics database, I was shocked by the prevalence of serious adverse life events that had been reported. As a female, having recruited a disproportionate number of female participants, I was particularly dismayed at the level of sexual assault (13.8%), other unwanted sexual experience (33.8%) and physical assault (35.2%) that was reported by the participants in my sample.

Whilst the starkness of seeing the prevalence of these traumatic/adverse experiences was particularly striking, it was helpful to be able to consider it alongside my research findings. The finding of a moderately strong significant positive relationship between trauma and PTG reminded me of the opportunities that can arise following such difficult experiences.

My research findings also resonated with my own experience of adversarial growth. I reflected in particular on my gratitude for having developed new outlooks on life in terms of my values and priorities. This area of personal growth has led to improved relationships with friends and family.

I am pleased that I was able to explore unconditional positive self-regard and posttraumatic growth as a main focus of my empirical chapter. It is my hope that the next stage of my career will afford me the opportunity to conduct further research into this topic or to look at additional aspects of the data I collected that might potentially offer further useful contribution and be written up for publication (e.g. up to date prevalence rates of adverse life experiences in the general population, gender specific findings etc.).

3.5. Reflections on undertaking a systematic literature review

My experience of conducting a systematic literature review has been somewhat comparable to climbing a steep hill. At the outset, I was enthusiastic but unsure of how long my journey would take, how tired I may become or what the view would look like when I reached the top. I found myself wondering whether I would be able to make sense of what seemed like a disjointed set of research papers and synthesise something accessible and interesting to the reader. I was relieved to finally reach the top of this hill, where the view became clear and made sense to me.

The topic of my literature review developed from an initial interest in conditional parental regard and whether or not it may affect well-being and mental health over time. As there was insufficient literature to be able to conduct a systematic literature review in this specific area, I began to think about the broader but related concept of parental psychological control. I became curious about what impact this may have on individuals. Through integration of theory and practice, I reflected on some of the clients that I have worked with so far in my career. I considered the relational dynamics that I observed in the room or was told about. I noticed myself thinking about the way in which difficult relational factors appear to act as perpetuating factors in the maintenance of many clients reported difficulties. I wondered whether the existing body of literature could provide a helpful idea about some of the clinical populations that I have worked with and was pleased to find that there was no existing published review of longitudinal research in this area.

This topic area and the related concept of introjected values of self-regard (Rogers, 1959) both appeared to be core features of the clinical populations I have worked with. This left me feeling curious about whether and how material I may cover with clients during an assessment interview regarding their early parental experiences may contribute to their present day relational difficulties and associated referral to mental health services (Assor, Roth and Deci 2004).

3.6. Personal reflections on my own contingent self-regard

Whilst undertaking my own personal development plan as part of my personal and professional development, I couldn't help but integrate some of my theoretical learning about conditional self-regard. I reflected upon my own 'academic contingencies' and at times the importance placed on succeeding as a determinant for my own sense of self. This is something I found important to reflect and build upon for my own personal and professional development. In terms of working with clients and being 'successful' (achieving a desired outcome), I considered how reflective practice and clinical supervision are very important ways of re-attuning to what a client deems as 'success', whilst also being aware of both what I as a therapist may view as 'success' and an altogether different outlook on 'outcome success' from an organisational perspective.

Along with my own experiences of adversarial growth and self-development work, I have benefitted from being able to recognise my contingent sense of self. When I become aware of this, I find that I am more able to monitor it in action and think about how I want to respond to myself and others. This can be thought of as reflexivity (Johns,

2004), which is certainly a development that I am pleased to be working on and towards as an ongoing process.

3.7. Professional Growth

My most recent placement working in a university counselling service, providing a person-centred informed approach to working, resonated strongly with my growth and development as a clinician. This was compounded by the very fact that I was carrying out research on posttraumatic growth and unconditional positive self-regard. This was also aided by the fact that this elective placement supported and encouraged a focus on self-development.

I was keen to work in a way that would allow me to work more intuitively with clients through the use of a person-centred model and with a greater focus on what I might bring to a therapy session. My goals were to increase my confidence as a practitioner working with young adults and to be able to hold and manage a large caseload. Working within a person-centred approach and concentrating on the use of self as a therapist very much challenged me to think about what I bring in to the room for a client and to attune more closely to what I noticed myself feeling invited to respond to in clients.

I noticed a shift in the way I was working as a therapist and this very much aligned with my research interest and the person-centred therapy position of responding to clients with authenticity and unconditional positive regard. I also observed process linked to posttraumatic growth occurred in clients who had encountered undeniably traumatic

events but, who nonetheless showed gratitude for what life now offered, and in some cases completely re-evaluated important domains of their lives.

Working in this environment with a large variety of presenting difficulties, I was able to think more widely about how my research topic and literature review knowledge had informed my work as a clinician. From synthesising numerous longitudinal studies, I was able to conclude that whilst psychological control may have a number of negative psychological sequelae, there is also important evidence around the role of autonomy support in the promotion of optimum psychological functioning. As an autonomous clinician I have noticed the growing importance of receiving autonomy-support from clinical supervisors. I have also grown to appreciate the beneficial role that this can play when working therapeutically with clients.

3.7.1. The circus elephant

As part of my clinical supervision during this placement, I was encouraged to think about the parts of self that may be invited to respond to clients in the room and to be able to respond in an authentic manner. The use of imagery and metaphors became a valuable source of learning and aided the communication between my supervisor and me. In preparation for a review session of our supervision sessions, I was encouraged to think about my supervisory relationship as an image. What came from this was a very valuable learning experience. The image that I developed was myself as a circus elephant,

balancing precariously on a ball, whilst the ring master, my supervisor, stood ahead of me. The audience (my appraisal tutor, colleagues etc…) all watched in anticipation.

I initially used this metaphor to reflect on my sense of trying to balance many different demands, a sense of pressure to perform competently and an ongoing awareness that I was being evaluated on a number of components of the training course. Re-visiting the metaphor from time to time became a helpful way of noticing what I needed for my personal and professional development and provided more opportunity to achieve this. Over time, in later supervision sessions, the concept of 'the ring master' became a focus. Specifically, this involved paying attention to my own sense of imbalance in the supervisory relationship, which became a goal to work towards addressing. This required me to qualify my hopes and expectations at the outset of each supervision session; what I wanted to bring but also what I wanted from each component (unpacking process issues, space to think about the client's needs or difficulties etc…).

Over time this 'circus elephant' metaphor came to represent for me my personal and professional journey to becoming a bolder and more autonomous individual. I was aware that this had been something I had strived for previously. I reflected upon how the timing of this placement alongside my experience of conducting my thesis, and indeed together with my own pursuit of self-development, had allowed this to occur as a more natural process.

I believe that these supervision experiences were particularly valuable to me. Reflecting on the person-centred approach to getting me there, has provided me with an experiential learning that has helped to consolidate my understanding of person-centred theory and therapy. Something transformative occurred for me in knowing that

my supervisor was metaphorically sitting by my side rather than in front of me. This experience, for me, embodied the conclusions I reached in my literature review around the importance of autonomy support. It also tied in with my growing understanding of the person-centred and organismic valuing theory concept that 'under favourable social-environmental conditions that an individual's self-concept actualises in accordance with their organismic valuing process' (Patterson and Joseph, 2007) and relates to an individual's evaluation of their experiences that is consistent with their intrinsic needs (Rogers, 1957b).

3.8. Summary of the reflective process

In summary the reflective learning process whist conducting my thesis has been multi-faceted and has informed the way in which I plan to take forwards my career as a clinical psychologist. The skills I have developed in systematically searching for and evaluating a body of literature has been challenging but equally has felt like an achievement. My increased knowledge and skills have broadened my interest in the application of developmental and social psychology within the field of clinical psychology. Equally the accomplishment of undertaking a piece of research on growth in the face of adversity has equipped me well for any future research I may undertake as a scientist-practitioner and has provided me with the confidence to be able to do so in a more autonomous manner.

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Appendices

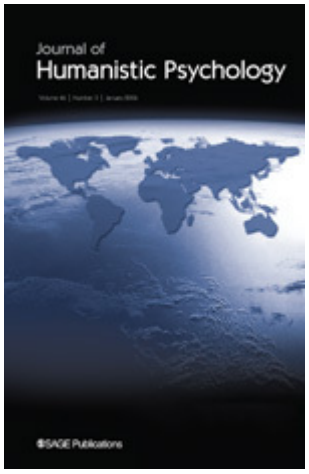
1. **Appendix 1 Instructions for Authors (Journal of Humanistic Psychology; Person Centred & Experiential Psychotherapies).**

Journal of Humanistic Psychology

Editor:

[Shawn Rubin]

Saybrook University, USA



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The review process is primarily aimed at drawing your attention to possible perspectives you might not have considered sufficiently and thus improve your work. Our editorial team has gained a lot of experience over the last six years in supporting authors through the review and revision process. We pride ourselves in thinking that we are much more supportive than other international journals. If you are publishing for the first time in an academic journal, *Person-Centered & Experiential Psychotherapies* may offer the most supportive and developmentally oriented choice. We also help with language issues. If you submit a paper in a language other than English, it will first be pre-reviewed by people who read your language. Thus translation into English only happens at a time when your paper most likely will be accepted for publication.

All our published articles have gone through such a review process and authors have generally agreed that it has helped to improve their argument and strengthen their message.

If you have any questions, please do not hesitate to the Editors.

Manuscript preparation

1. General guidelines

Submitted papers should conform to the following guidelines:

- Papers may be submitted in a language other than English (see above note on the peer review process). For articles written in English, American English spelling and punctuation is preferred.
- A typical article will normally be **3,000-7,000 words** and shorter reports and reviews of **1000-2,500 words** . Papers that greatly exceed this will be critically reviewed with respect to length. Authors should include a word count (including references) with their manuscript.
- Manuscripts should be compiled in the following order: title page; abstract; keywords; main text; acknowledgments; appendixes (as appropriate); references; table(s) with caption(s) (on individual pages); figure caption(s) (as a list).
- Printed doubled spaced, in 12-point font.
- All the authors of a paper should include their full names, affiliations, postal addresses, telephone number, email addresses and a 50-60 word biographic statement for each author on the cover page of the manuscript. One author should be identified as the Corresponding Author.
- The first page following the cover page should repeat the title of the paper.
- All pages should be numbered.
- All tables and figures should be numbered and presented on separate page.
- Abstracts of 180 words are required for all papers submitted.
- Each paper should have 4-6 keywords for database referencing at the end of the abstract.
- Section headings should be descriptive and concise
- In a covering letter the senior author should confirm that the paper has not been offered either substantially or partially to another publication.

- For all manuscripts non-discriminatory language is mandatory. Sexist or racist terms should not be used.
- Authors must adhere to SI units . Units are not italicised.
- When using a word which is or is asserted to be a proprietary term or trade mark, authors must use the symbol ® or TM.
- Footnotes should be used sparingly if at all.
- References should follow the convention outlined below.

2. Style guidelines

Description of the Journal's article style

Description of the Journal's reference style . Visit CiteRefs for assistance in ensuring accurate referencing according to APA style.

References should be listed alphabetically in a references section at the end of the paper.

3. Figures

- It is in the author's interest to provide the highest quality figure format possible. **Please be sure that all imported scanned material is scanned at the appropriate resolution: 1200 dpi for line art, 600 dpi for grayscale and 300 dpi for colour.**
- Figures must be saved separate to text. Please do not embed figures in the paper file.
- Files should be saved as one of the following formats: TIFF (tagged image file format), PostScript or EPS (encapsulated PostScript), and should contain all the necessary font information and the source file of the application (e.g. CorelDraw/Mac, CorelDraw/PC).
- All figures must be numbered in the order in which they appear in the paper (e.g. figure 1, figure 2). In multi-part figures, each part should be labelled (e.g. figure 1(a), figure 1(b)).
- Figure captions must be saved separately, as part of the file containing the complete text of the paper, and numbered correspondingly.
- The filename for a graphic should be descriptive of the graphic, e.g. Figure1, Figure2a.

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Manuscripts must include a statement that informed consent was obtained from human subjects. Authors should protect patient anonymity by avoiding the use of patients' names or initials, hospital number, or other identifying information.

7. Code of experimental ethics and practice and confidentiality

Contributors are required to follow the procedures in force in their countries which govern the ethics of work conducted with human or animal subjects. The Code of Ethics of the World Medical Association (Declaration of Helsinki) represents a minimal requirement.

For human subjects or patients, describe their characteristics. For human participants in a research survey, secure the consent for data and other material - verbatim quotations from interviews, etc. - to be used. Specific permission for any facial photographs is required. A letter of consent must accompany any photographs in which the possibility of identification exists. It is not sufficient to cover the eyes to mask identity.

It is your responsibility to ensure that the confidentiality of patients is maintained. All clinical material used in your article must be disguised so that it is not recognisable by a third party. Where possible and appropriate, the permission of the patient should be obtained. Authors are invited to discuss these matters with the editor if they wish.

8. Conflict of Interests

All authors of accepted articles are required to reveal any possible conflict of interest in the conduct and reporting of research.

Manuscript submission

All submissions should be made online at the Person-Centered & Experiential Psychotherapies ScholarOne Manuscripts site . New users should first create an account. Once a user is logged onto the site submissions should be made via the Author Centre.

Authors should prepare one complete anonymous text. All author infromation should appear on the title page which is submited as a separate file.

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Appendix 2

Literature Review –

Template Quality Assessment Frame work

Quality Assessment Summary Table

EBL Critical Appraisal Checklist		Yes (Y)	No (N)	Unclear (U)	N/A
Section A: Populatio	Is the study population representative of all users, actual and eligible, who might be included in the				
	Are inclusion and exclusion criteria definitively outlined?				
	Is the sample size large enough for sufficiently precise estimates?				
	Is the response rate large enough for sufficiently precise estimates?				
	Is the choice of population bias-free?				
	If a comparative study: Were participants randomized into groups? Were the groups comparable at baseline? If groups were not comparable at baseline, was incomparability addressed by the authors in the analysis?				
	Was informed consent obtained?				
Section B: Data Collection	Are data collection methods clearly described?				
	If a face-to-face survey, were inter-observer and intra-observer bias reduced?				
	Is the data collection instrument validated?				
	If based on regularly collected statistics, are the statistics free from subjectivity?				
	Does the study measure the outcome at a time appropriate for capturing the intervention's effect?				
	Is the instrument included in the publication?				
	Are questions posed clearly enough to be able to elicit precise answers?				
	Were those involved in data collection not involved in delivering a service to the target population?				
Section C: Study Design	Is the study type / methodology utilized appropriate?				
	Is there face validity?				
	Is the research methodology clearly stated at a level of detail that would allow its replication?				
	Was ethics approval obtained?				
	Are the outcomes clearly stated and discussed in relation to the data collection?				
Section D: Results	Are all the results clearly outlined?				
	Are confounding variables accounted for?				
	Do the conclusions accurately reflect the analysis?				
	Is subset analysis a minor, rather than a major, focus of the article?				
	Are suggestions provided for further areas to research?				
	Is there external validity?				

Calculation for section validity: (Y+N+U=T)	**Calculation for overall validity: (Y+N+U=T)**
If Y/T <75% or if N+U/T > 25% then you can safely conclude that the section identifies significant omissions and that the study's validity is questionable. It is important to look at the overall validity as well as section validity.	If Y/T ≥75% or if N+U/T ≤ 25% then you can safely conclude that the study is valid.
Section A validity calculation: **Section B validity calculation:** **Section C validity calculation:** **Section D validity calculation:**	**Overall validity calculation:**

EBLIP Critical Appraisal Checklist
Lindsay Glynn, MLIS Memorial University of Newfoundland
lglynn@mun.ca

EBL Quality Checklist: Rating summary	Percentage				
Author	**Section A Population**	**Section B Data Collection**	**Section C Study Design**	**Section D Results**	**Overall rating**
Albrecht, A. K., Galambos, N. L., & Jansson, S. M. (2007)	83	71	80	100	82
Barber, B. K., Stolz, H. E., Olsen, J. A., Collins, W. A., & Burchinal, M. (2005)	83	85	80	100	87
Boudreault-Bouchard, A. M., Dion, J., Hains, J., Vandermeerschen, J., Laberge, L., & Perron, M (2013)	50	50	80	60	59
Conger, K. J., Conger, R. D., & Scaramella, L. V. (1997)	50	66	80	32	65
Feng, X., Keenan, K., Hipwell, A. E., Henneberger, A. K., Rischall, M. S., Butch, J., & Babinski, D. E. (2009)	83	71	80	80	78
Galambos, Barker, and Almeida (2003)	33	43	40	60	43
Hauser Kunz, J., & Grych, J. H. (2013)	33	71	80	80	65
Loukas, A. (2009)	66	71	80	80	74
Pettit, G. S., Laird, R. D., Dodge, K. A., Bates, J. E., & Criss, M. M. (2001)	50	57	80	40	56
Rogers, K. N., Buchanan, C. M., & Winchell, M. E. (2003)	50	66	80	80	68
Shek, D. T. (2007)	83	71	60	60	69
Sher-Censor, E., Parke, R. D., & Coltrane, S. (2011)	33	50	60	80	55
Soenens, B., Luyckx, K., Vansteenkiste, M., Luyten, P., Duriez, B., & Goossens, L. (2008)	67	67	80	80	73
Wang, Pomeranz and Chan (2007)	50	57	80	80	65
Wijsbroek, S. A., Hale III, W. W., Raaijmakers, Q. A., & Meeus, W. H (2011)	50	67	80	60	64

Appendix 3

Literature Review – Description of scales used in selected studies

Appendix - Description of scales used in the selected studies

The Psychological Control Scale, (Barber, 1996)

The Psychological Control Scale (Barber, 1996) comprises of three scales developed and was validated in order to specifically measure parental psychological control:

- Psychological Control Scale; the Child Report of Parent Behaviour Inventory. This scale has 6 items measuring controlling behaviours. An example item reads “Is less friendly with me if I do not see things their way”. Cronbach’s alpha scores were reported at 0.69-0.81, suggesting broadly acceptable internal consistency and reliability.

- Psychological Control Scale – Observer. This coding scheme provides an alternative method to self-report used to rate observed behaviour of PPC. An example coding item is ‘Degree to which the parent engages in behaviour that prevents the child from talking (i.e., interrupting, speaking for the child). Alpha co-efficient scores were reported at 0.83 (mothers) and 0.81 (fathers), indicating good internal reliability of the measure.

- Psychological Control Scale – Youth Self Report. This is measured with an 8 item scale and refers to an individual’s perception of being at the receiving end of PPC such as invalidation of feelings, constraining verbal expressions, verbally attacking and love withdrawal. An example item is “My mother/father is always trying to change how I feel or think about things”. Cronbach’s alpha scores were reported as ranging 0.72-0.85, again within an acceptable range.

The constructs of internalised behaviours considered within Barber’s scale refer specifically to depression. Studies using Barber’s scales report ‘internalising behaviour’ without mention of specific symptomology and are considered within the context of depressive symptomology.

The Children's report on Parent Behaviour Inventory (CRPBI) (Shaefer 1965)

This scale by Shaefer (1965) has been adapted a number of times. Each adaptation of this scale utilised in studies in the present review used the negative control subscale of this form. The Cronbach alpha coefficients for this subscale were .87 for both mothers and fathers (Safford et al, 2007).

Other versions of the 1965 scale include a 56 item parent version of the Child Report of Parent Behaviour (CRPBI; Burger and Armentrout, 1971). The psychological control subscale consists of a 15 items. An example item reads "I say that someday our child will be sorry that he/she wasn't better as a child". Cronbach alpha coefficients were reported as .87 for fathers and .84 for mothers.

Parental emotional support and coercive control questionnaire (Deschenes, 1997)

Coercive control is assessed using a five-item Likert scale. Items related to psychological violence and abusive intrusion by parents. Children are requested to fill out a form for both parents, and in instances where there is little or no contact with one or both biological parents, respondents are requested to complete measure for the female and male adults they feel play these roles. Alpha coefficient scores were reported at .84 for female parent and .80 for male parent.

Chinese Paternal Control Scale and Chinese Maternal Control Scale (Shek, 2002)

This is 10 item self-report measure based upon western literature (Barber, 1996) and features items that include invalidation of feelings and experiences, personal attack and love withdrawal. Alpha coefficients were reported at .90 and .91, again broadly within an acceptable range for internal reliability.

Adapted version of the Block Rearing Practices Report (Rickel and Biasatti, 1982)

Sher Censor, Park and Coltrane (2011) developed a further scale based upon the Child Rearing Practices Report (CRPR) (Rickel and Biasatti, 1982). Items measure guilt induction, love withdrawal and pressurising the adolescent to feel and behave according to the parents' desires. An item example reads "When my father is frustrated with me, he sometimes ignores me for a while". Cronbach's alpha was reported at .77.

Parenting Coding System (Siqueland, Kendall and Steinberg, 1996)

This rating system requires a trained observer to make frequency counts during a 60-minute child-parent observation. The following behaviours were targeted; constraining the child's verbal expression, invalidating feelings or opinions, love withdrawal, and guilt induction. As this is an observational coding, there are no Cronbach Alpha coefficient scores.

Appendix 4

Ethical review feedback form and details of minor amendment

Is there a mediating relationship between posttraumatic growth and self-acceptance? A longitudinal study: P11072

REGISTRY RESEARCH UNIT

ETHICS REVIEW FEEDBACK FORM

(Review feedback should be completed within 10 working days)

Name of applicant: Sarah Flanagan .....

Faculty/School/Department: [Faculty of Health and Life Sciences] Clinical Psychology .....

Research project title: Is there a mediating relationship between posttraumatic growth and self-acceptance? A longitudinal study

Comments by the reviewer

1. Evaluation of the ethics of the proposal:

The research proposal is well written and has addressed all the essential ethical issues required for the project.

2. Evaluation of the participant information sheet and consent form:

I recommend a slight addition to the consent form to state that the information will be destroyed if participants withdraw their consent and that this won't affect their studies/position at the University in any way.

3. Recommendation:

(Please indicate as appropriate and advise on any conditions. If there any conditions, the applicant will be required to resubmit his/her application and this will be sent to the same reviewer).

	Approved - no conditions attached
X	Approved with minor conditions (no need to re-submit)
	Conditional upon the following – please use additional sheets if necessary (please re-submit application)
	Rejected for the following reason(s) – please use other side if necessary
	Not required

Name of reviewer: Anonymous .....

Date: 23/04/2013 .....

RE: Minor change to wording on participant information sheet

Elaine Cartmill <Elaine.Cartmill@coventry.ac.uk>
on behalf of
ethics.hls <ethics.hls@coventry.ac.uk>
Tue 09/07/2013 09:15
To: Sarah Flanagan <flanag13@uni.coventry.ac.uk>;

Yes it is fine. Make sure you change the PIS before you give it to your participants. I will save this email, so that there is a trail of the matter.

Best wishes with the research.

Elaine

From: Sarah Flanagan [mailto:flanag13@uni.coventry.ac.uk]
Sent: 08 July 2013 14:57
To: ethics.hls
Subject: Re: Minor change to wording on participant information sheet

Hi Elaine

Thank you for your quick reply. The change of wording is more to reflect the client group I am looking to recruit (general population rather than clinical) and also to avoid participants being guided by my research expectations such as they ought to have experienced personal growth as may be inferred by the original wording. There are no other intended changes in terms of methodology so hopefully it sounds as though this might be okay.

Best wishes

Sarah

Sent from my iPhone

On 8 Jul 2013, at 14:43, "ethics.hls" <ethics.hls@coventry.ac.uk> wrote:

Afternoon Sarah,

If the wording is changing to make it more transparent for participants/recruitment, it is okay, as that has no ethical implications.

Unless you are changing the design of study, methodology, changing data collection method, recruitment pool etc then these would have ethical implications.

Kind regards
Elaine

P. Elaine Cartmill
Research Support Officer

Faculty of Health & Life Sciences
RSO (Research Support Office)
Room RC114/115
Richard Crossman Building
COVENTRY

Tel: (024) 7679 5831
ab2921@coventry.ac.uk
elaine.cartmill@coventry.ac.uk

From: Sarah Flanagan [mailto:flanag13@uni.coventry.ac.uk]
Sent: 04 July 2013 16:23
To: ethics.hls
Subject: Minor change to wording on participant information sheet

To whom it may concern,

I received ethical approval in April and am in the process on setting up my study for online research. IN discussions with my supervisors, we feel that it would be more helpful for the purpose of the research to provide a slightly vaguer wording on a small part of the form (namely; rather than using the term 'post traumatic growth' to use the phrase 'the study is about how people cope following adverse events' .

Please could you advise me whether this could be agreed upon as a minor amendment or would I need to submit through ethics again

Thank you in advance

Sarah Flanagan
Trainee Clinical Psychologist
Ethics ref: P11072

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Appendix 5

Copies of Psychometric Scales

(As presented on Bristol Online Surveys)

Coping With Adverse Life Events

Demographic Questionnaire

Please answer the following questions.

2. Are you male or female?

☐ Male ☐ Female

3. How old are you?

Select an answer

4. Which of the following categories fits your employment status?

- ☐ Full Time
- ☐ Part-time
- ☐ Not employed
- ☐ Retired
- ☐ Unable to work
- ☐ Student

5. What is your highest level of education?

- ☐ GSCE or equivalent
- ☐ 'A' level or equivalent
- ☐ College diploma/equivalent
- ☐ Undergraduate degree/ equivalent

Postgraduate qualification

Other *(please specify)*:

6. How would you describe your ethnicity?

Select an answer

If you selected Other, please specify:

7. Please enter your email address below so that we can contact you to complete the second set of questionnaires in three months time. Please note that your email address is confidential and will not be passed on to any other parties.

Continue >

Life Events Checklist

8. Listed below are a number of difficult or stressful things that sometimes happen to people. For each event check the relevant box to indicate whether this event has happened to you or not. **Be sure to consider your entire life (growing up as well as adulthood) as you go through the list of events.**

	Please select whether or not this event happened to you	
	Happened to me	**Did not happen to me**
a. Natural disaster (for example, flood, hurricane, tornado, earthquake)	☐	☐
b. Fire or explosion	☐	☐
c. Transportation accident (for example, car accident, boat accident, train wreck, plane crash)	☐	☐
d. Serious accident at work, home, or during recreational activity	☐	☐
e. Exposure to toxic substance (for example, dangerous chemicals, radiation)	☐	☐
f. Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)	☐	☐
g. Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)	☐	☐
h. Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)	☐	☐
i. Other unwanted or uncomfortable sexual experience	☐	☐
j. Combat or exposure to a war-zone (in the military or as a civilian)	☐	☐
k. Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)	☐	☐

l. Life-threatening illness or injury	☐	☐
m. Severe human suffering	☐	☐
n. Sudden, violent death (for example, homicide, suicide)	☐	☐
o. Sudden, unexpected death of someone close to you	☐	☐
p. Serious injury, harm, or death you caused to someone else	☐	☐
q. Any other very stressful event or experience	☐	☐

9. Please select which of these life events has caused the greatest impact/difficulties.

Select an answer

If you selected Other, please specify:

10. Please indicate from the drop down box below when this nominated life event took place.

Select an answer

Continue >

Impact of Events

11. Below is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you **DURING THE PAST SEVEN DAYS with respect to your nominated life event identified above**, which has had the greatest impact. How much were you distressed or bothered by these difficulties?

	Please respond using the scale below				
	Not at all	**A little bit**	**Moderately**	**Quite a bit**	**Extremely**
a. Any reminder brought back feelings about it.	☐	☐	☐	☐	☐
b. I had trouble staying asleep.	☐	☐	☐	☐	☐
c. Other things kept making me think about it.	☐	☐	☐	☐	☐
d. I felt irritable and angry.	☐	☐	☐	☐	☐
e. I avoided letting myself get upset when I thought about it or was reminded of it.	☐	☐	☐	☐	☐
f. I thought about it when I didn't mean to.	☐	☐	☐	☐	☐
g. I felt as if it hadn't happened or wasn't real.	☐	☐	☐	☐	☐
h. I stayed away from reminders of it.	☐	☐	☐	☐	☐
i. Pictures about it popped into my mind.	☐	☐	☐	☐	☐
j. I was jumpy and easily startled.	☐	☐	☐	☐	☐
k. I tried not to think about it.	☐	☐	☐	☐	☐
l. I was aware that I still had a lot of feelings about it, but I didn't deal with them.	☐	☐	☐	☐	☐
m. My feelings about it were kind of numb.	☐	☐	☐	☐	☐
n. I found myself acting or feeling like I was back at that time.	☐	☐	☐	☐	☐
o. I had trouble falling asleep.	☐	☐	☐	☐	☐

p. I had waves of strong feelings about it.	☐	☐	☐	☐	☐
q. I tried to remove it from my memory.	☐	☐	☐	☐	☐
r. I had trouble concentrating.	☐	☐	☐	☐	☐
s. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.	☐	☐	☐	☐	☐
t. I had dreams about it.	☐	☐	☐	☐	☐
u. I felt watchful and on-guard.	☐	☐	☐	☐	☐
v. I tried not to talk about it.	☐	☐	☐	☐	☐

Continue >

Warwick Edinburgh Mental Well-being Scale

12. Below are some statements about feelings and thoughts. Please tick the box that best describes your experience of each **over the last 2 weeks**.

	Please respond using the scale below				
	None of the time	**Rarely**	**Some of the time**	**Often**	**All of the time**
a. I've been feeling optimistic about the future.	☐	☐	☐	☐	☐
b. I've been feeling useful.	☐	☐	☐	☐	☐
c. I've been feeling relaxed.	☐	☐	☐	☐	☐
d. I've been feeling interested in other people.	☐	☐	☐	☐	☐
e. I've had energy to spare.	☐	☐	☐	☐	☐
f. I've been dealing with problems well.	☐	☐	☐	☐	☐
g. I've been thinking clearly.	☐	☐	☐	☐	☐
h. I've been feeling good about myself.	☐	☐	☐	☐	☐
i. I've been feeling close to other people.	☐	☐	☐	☐	☐
j. I've been feeling confident.	☐	☐	☐	☐	☐
k. I've been able to make up my own mind about things.	☐	☐	☐	☐	☐
l. I've been feeling loved.	☐	☐	☐	☐	☐
m. I've been interested in new things.	☐	☐	☐	☐	☐
n. I've been feeling cheerful.	☐	☐	☐	☐	☐

Unconditional Positive Self-Regard Scale

14. Below is a list of statements dealing with your general feelings about yourself. Please, respond to each statement by circling your answer using the scale "1 = Strongly Disagree" to "5 = Strongly Agree".

	Please respond using the scale below				
	Strongly Disagree	**Disagree**	**Unsure**	**Agree**	**Strongly Agree**
a. I truly like myself.	☐	☐	☐	☐	☐
b. Whether other people criticise me or praise me makes no real difference to the way I feel about myself.	☐	☐	☐	☐	☐
c. There are certain things I like about myself and there are other things I don't like.	☐	☐	☐	☐	☐
d. I feel that I appreciate myself as a person.	☐	☐	☐	☐	☐
e. Some things I do make me feel good about myself whereas other things I do cause me to be critical of myself.	☐	☐	☐	☐	☐
f. How I feel towards myself is not dependent on how others feel towards me.	☐	☐	☐	☐	☐
g. I have a lot of respect for myself.	☐	☐	☐	☐	☐
h. I feel deep affection for myself.	☐	☐	☐	☐	☐
i. I treat myself in a warm and friendly way.	☐	☐	☐	☐	☐
j. I don't think that anything I say or do really changes the way I feel about myself.	☐	☐	☐	☐	☐
k. I really value myself.	☐	☐	☐	☐	☐
l. Whether other people are openly appreciative of me or openly critical of me, it does not really change how I feel about myself.	☐	☐	☐	☐	☐

Posttraumatic Growth Inventory
15.

	Please respond using the scale below				
	I did not experience this change	**I experienced this change to a small degree**	**I experienced this change to a moderate degree**	**I experienced this change to a great degree**	**I experienced this change to a very great degree**
a. I changed my priorities about what is important in life.	☐	☐	☐	☐	☐
b. I have a greater appreciation for the value of my own life.	☐	☐	☐	☐	☐
c. I developed new interests.	☐	☐	☐	☐	☐
d. I have a greater feeling of self-reliance.	☐	☐	☐	☐	☐
e. I have a better understanding of spiritual matters.	☐	☐	☐	☐	☐
f. I more clearly see that I can count on people in times of trouble.	☐	☐	☐	☐	☐
g. I established a new path for my life.	☐	☐	☐	☐	☐
h. I have a greater sense of closeness with others.	☐	☐	☐	☐	☐

i. I am more willing to express my emotions.	☐	☐	☐	☐	☐
j. I know better that I can handle difficulties.	☐	☐	☐	☐	☐
k. I am able to do better things with my life.	☐	☐	☐	☐	☐
l. I am better able to accept the way things work out.	☐	☐	☐	☐	☐
m. I can better appreciate each day.	☐	☐	☐	☐	☐
n. New opportunities are available which wouldn't have been otherwise.	☐	☐	☐	☐	☐
o. I have more compassion for others.	☐	☐	☐	☐	☐
p. I put more effort into my relationships.	☐	☐	☐	☐	☐
q. I am more likely to try to change things which need changing.	☐	☐	☐	☐	☐
r. I have a stronger religious faith.	☐	☐	☐	☐	☐
s. I discovered that I'm stronger than I thought I was.	☐	☐	☐	☐	☐

t. I learned a great deal about how wonderful people are.	☐	☐	☐	☐	☐
u. I better accept needing others.	☐	☐	☐	☐	☐

Continue >

Changes in Outlook Questionnaire

Each of the following statements has been made at some time by individuals who have experienced adverse or traumatic life events. Please read each one and indicate, by selecting the appropriate response, how much you agree or disagree with it **AT THE PRESENT TIME**.

	Please respond using the scale below					
	Strongly Disagree	**Disagree**	**Disagree a little**	**Agree a little**	**Agree**	**Strongly Agree**
a. I don't look forward to the future anymore.	☐	☐	☐	☐	☐	☐
b. My life has no meaning anymore.	☐	☐	☐	☐	☐	☐
c. I no longer feel able to cope with things.	☐	☐	☐	☐	☐	☐
d. I don't take life for granted anymore.	☐	☐	☐	☐	☐	☐
e. I value my relationships much more now.	☐	☐	☐	☐	☐	☐
f. I feel more experienced about life now.	☐	☐	☐	☐	☐	☐
g. I don't worry about death at all anymore.	☐	☐	☐	☐	☐	☐
h. I live every day to the full now.	☐	☐	☐	☐	☐	☐
i. I fear death very much now.	☐	☐	☐	☐	☐	☐
j. I look upon each day as a bonus.	☐	☐	☐	☐	☐	☐
k. I feel as if something bad is just waiting around the corner to happen.	☐	☐	☐	☐	☐	☐
l. I'm a more understanding and tolerant person now.	☐	☐	☐	☐	☐	☐
m. I have a greater faith in human nature now.	☐	☐	☐	☐	☐	☐

n. I no longer take people or things for granted.	☐	☐	☐	☐	☐	☐
o. I desperately wish I could turn the clock back to before it happened.	☐	☐	☐	☐	☐	☐
p. I sometimes think it's not worth being a good person.	☐	☐	☐	☐	☐	☐
q. I have very little trust in other people now.	☐	☐	☐	☐	☐	☐
r. I feel very much as if I'm in limbo.	☐	☐	☐	☐	☐	☐
s. I have very little trust in myself now.	☐	☐	☐	☐	☐	☐
t. I feel harder toward other people.	☐	☐	☐	☐	☐	☐
u. I am less tolerant of others now.	☐	☐	☐	☐	☐	☐
v. I am much less able to communicate with other people now.	☐	☐	☐	☐	☐	☐
w. I value other people more now.	☐	☐	☐	☐	☐	☐
x. I am more determined to succeed in life now.	☐	☐	☐	☐	☐	☐
y. Nothing makes me happy anymore.	☐	☐	☐	☐	☐	☐
z. I feel as if I'm dead from the neck downward.	☐	☐	☐	☐	☐	☐

Continue >

Appendix 6

Participant Information Form, Consent form, Debrief form

'''COPING WITH ADVERSE LIFE EVENTS'''

PARTICIPANT INFORMATION

Thank you for your interest in this study. Before you decide whether or not you would like to participate it is important for you to understand what will be involved. This information page will explain the possible advantages and disadvantages of taking part and what will happen to the information you provide.
Please take your time to read all of the information on this sheet before making a decision to participate in this study or not.

DETAILS OF THIS STUDY

The aims of this study are to examine whether there are specific personality factors that may predict the chance of an individual experiencing posttraumatic growth (PTG) following the experience of a traumatic life event.

Posttraumatic growth is a term that is used to explain instances where an individual reports positive changes that they have experienced in the process of adjusting to an adverse or traumatic life event. If you decide to participate you will be asked to give consent and to complete several questionnaires. For scientific credibility it will be necessary that these same questionnaires are repeated again in a few months time. This is so the researcher is able to examine whether any findings can be relied upon as a constant over time.

WHY HAVE I BEEN INVITED TO TAKE PART?

There is limited research available, which has been able to identify a link between certain personality factors and posttraumatic growth. It is anticipated that any findings that emerge from this study might be able to contribute to the existing knowledge base. I am interested in finding about specific personality factors associated with PTG because it may contribute towards future clinical treatments in identifying those individuals who may require additional support in overcoming trauma.

WHAT WILL I BE EXPECTED TO DO?

If you decide to participate in this study you will be asked to complete several short questionnaires. It will also request some demographic data such as your age, gender and ethnic origin. The other questionnaires will collect information on the nature of any traumatic event you may have experienced; a scale that measure the impact this continues to have; a well-being questionnaire, two short questionnaires that measure sense of self-worth, and two short posttraumatic growth questionnaires. This should take approximately 15 minutes to complete.

DO I HAVE TO TAKE PART?

No. There is no obligation for you to participate in this study. Even if you give consent to participate and begin to complete the questionnaires you are entitled to change your mind and withdraw yourself and your data from the study at any time. If you decide after you have taken part in the study that you would like to withdraw your data you can contact the principal investigator with your unique participant code any time until

January 31st 2014, at which point the research data is analysed as part of a doctoral thesis. If you request that your data is withdrawn by this date, it will be removed and destroyed. There will be no consequences to you in deciding that you do not wish to participate or wish to withdraw your data.

WHAT ARE THE POSSIBLE DISADVANTAGES OR RISKS ASSOCIATED WITH THIS STUDY?

Whilst completing a checklist of life events and impact questionnaire it is possible that this may trigger uncomfortable memories, thoughts and feelings. You are reminded that you are able to stop and withdraw from the study at anytime. The principal investigator will be contactable should you require to ask any further questions or to withdraw from the study.

WHAT ARE THE BENEFITS TO TAKING PART IN THIS STUDY?

By participating in this study you are helping to contribute towards research that looks to establish how to better help those suffering with trauma. It is also possible that by working your way through the questionnaires it may help you reflect on what factors have changed for the positive as well as the negative as a result of any adverse life events you may have experienced.

Further information about this study will be made available through a debriefing sheet, which you will be given at the end of the study (after the second data collection point). If you would like any further information about the study please contact the principal investigator who will be happy to email you a summary of the results.

WHAT IF SOMETHING GOES WRONG?

If you wish to make a complaint about how you have been treated by the principal investigator you can talk to them directly or you can use the Coventry University Complaints Procedure.

CONFIDENTIALITY AND DATA PROTECTION

All of the data collected in this research study will be treated confidentially and in line with the Data Protection Act (1998). Consent forms will be stored separately from the completed questionnaires. Questionnaires will only contain your unique participant code and therefore your identity will be protected throughout. These will be kept in a different locked filing cabinet. Data from questionnaires will be input into a statistical software programme and will be password protected. In accordance with Data Protection Act (1998) all data will be destroyed.

WHAT WILL HAPPEN TO THE RESULTS OF THIS STUDY?

The results of this study will be written up and submitted as part of a doctoral thesis by the principal investigator. It is anticipated that this may be re-written at a later date and submitted for publication in a peer reviewed journal. The results of the study may also be presented at an academic conference as part of a verbal presentation or in poster format.
For further information please contact:
Sarah Flanagan; principal investigator -- flanag13@uni.coventry.ac.uk
Dr Tom Patterson; research supervisor -- aa5654@coventry.ac.uk

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Thank you for considering to take part in this study. This study is completed anonymously, can be saved part way through and takes around 15 minutes to complete.

If you decide not to participate, please do not continue with the remaining questions.

Please note that once you have clicked on the CONTINUE button at the bottom of each page you can not return to review or amend that page

Participant Consent

1.

	Please select either 'yes' or 'no'	
	Yes	**No**
a. I confirm that I have read and understood the participant information form.	☐	☐
b. I have been made aware of the possible risks and benefits associated with taking part in this study and I understand what my participation shall involve.	☐	☐
c. I understand that my participation in this study is voluntary and I am free to withdraw at any stage without giving a reason.	☐	☐
d. I understand that my information will be destroyed if I withdraw my consent and that this won't affect my studies/position at the University in any way.	☐	☐

e. I understand that I have the right to change my mind about participating in this study at any time until 31st January 2014.	☐	☐
f. I understand that this consent form will be kept secure from unauthorised access, accidental loss or destruction.	☐	☐
g. I understand that in line with the Data Protection Act (1998) the information I provide will be destroyed after five years.	☐	☐
h. I consent to take part in this study.	☐	☐

Continue >

Coping with Adverse Life Events Follow up

Thank you for participating in this study. Your responses have now been submitted.

We do not anticipate that you will experience any difficulties as a result of taking part in this study. However if you feel that you require additional emotional support, please contact your General Practitioner (GP) who will be able to signpost you to the most relevant services in your area.

Your details will remain anonymous and your email address will not be passed on to any other party. Please do not hesitate to contact us if you have any queries about the study. If you would like more information or if you would like a summary of the study findings, which should be available from September 2014 please contact: flanag13@uni.coventry.ac.uk.

Debrief of Study

Thank you for participating in this research. The study is examining whether there is a relationship between the way in which individuals relate to themselves (sometimes referred to as sense of self) and the presence of posttraumatic growth. Posttraumatic growth is a term used to describe positive outcomes reported by individuals who have experienced traumatic events (Tedeschi and Calhoun, 1996). There is some evidence that personality factors influence the way in which an individual reacts following the experience of a traumatic event (Linley and Joseph, 2004). However this evidence is limited and findings have been inconsistently reported.

There is a separate body of research that looks to better understand the concept of self-worth. Evidence suggests that not only can a person view their sense of worth based on certain conditions where self-worth is heightened (such as academic, work and sporting achievements) and in terms of contingency (e.g. where success increases an individual's sense of self-worth and perceived failure decreases it). Contingent self-esteem was reported by Kernis and Paradise (1999) and the construct unconditional positive self-regard was developed by Patterson and Joseph (2006).

Past research has examined relationships between posttraumatic growth and self-esteem but has only examined global sense of self-esteem rather than considering the more subtle aspects of conditional and contingent self-relating (Kernis and Paradise, 2004). It was therefore proposed that research pulling these two elements together this area would contribute something helpful to the current literature base.

It is hypothesised that there is a mediating relationship between the construct of self-

acceptance (those who have less-contingent or less conditional sense of worth) and posttraumatic growth. It is hypothesised that this relationship will remain stable over time.

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